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# UTAH NATIVE PLANT SOCIETY

Newsletter  
January 1981

## REPORT: Statewide UNPS Board of Directors

At the December 11 meeting of UNPS in Salt Lake City, the following people were nominated and elected to the Board of Directors:

W. Richard Hildreth - Chairman	Robert Thompson
Claire Gabriel	John Gill
Lelia Schultz	Al Winward
Stanley L. Welsh	Sherel Goodrich
Elizabeth Neese	Richard J. Page
G. Michael Alder	Irving B. McNulty
Duane Atwood	Art Holmgren

New state UNPS officers have been nominated (These people are automatically on the board.):

Duane Atwood - President (term ends March 1981)  
Barbara Halliday - President-elect (term begins March 1981)  
Glenn Halliday - Treasurer  
Secretary - (position to be filled)

## NOTICE:

The UNPS Board of Directors will meet on January 22 at 7:00 p.m. in Room 104, Chem. Bldg., University of Utah Campus.

The SLC Chapter of UNPS will hold a January 22 meeting beginning at 8:00 p.m. in Room 101, Chem. Build., University of Utah Campus. Your support is welcomed! Steve Pendleton will be the speaker, and his subject will be use of native plants for landscape and reclamation.

There will be a report from the nomination committee, Claire Gabriel and Dan Allred. There will be election of officers for SLC Chapter of UNPS.

## UTAH RECEIVES MX IMPACT STATEMENT

by George Raine, Tribune Staff Writer  
(article taken from The Salt Lake Tribune, Wed. Morning, Jan. 7, 1981)

One-hundred fifty copies of the voluminous MX missile system draft environmental impact statement arrived in Salt Lake City Tuesday, for state-appointed reviewers, and Ken Olson, Utah's MX coordinator, said "we are underwhelmed" by its contents.

The statement, 1,900 pages in length and prepared at a cost of \$17 million, outlines potential impact on Utah and Nevada--and in Texas and New Mexico if the

system or part of it were to be based there-- and was officially released Dec. 18. But since then, Utah has had only five copies, for Gov. Scott M. Matheson, Mr. Olson and the 185 reviewers engaged to evaluate its technical data.

Mr. Olson said he expected the Air Force to send 250 copies of the draft-- "you never get exactly what you ask for from the Pentagon"--but it was learned that the Air Force had sent other copies to other Utah cities where the appointed reviewers are based.

Since notice of the draft statement was published in the Federal Register Jan. 2, the federal government started its clock then for the 90-day comment period on the statement, provided for under law.

Utah, said Mr. Olson, reacts negatively to that starting date, since the 185 copies were not in hand then and because it probably will not be until the latter part of January that the Air Force and its draft statement contractor supply a great many appendices to the document.

The state reviewers, who are lawyers or experts in certain environmental and social sciences important to the missile system's impact, will need that extra technical data to make intelligent conclusions, said Gov. Matheson.

The reviewers are in two groups, one drawn largely from state agencies, and the other drawn from faculties at the University of Utah, Utah State University and Brigham Young University.

These groups will be kept separate, said Gov. Matheson, since the university consortium wishes to preserve some autonomy and not give the appearance of working under the wing of a governor who has taken a policy position against the proposed deployment plan for the mammoth weapons system. If the university group does fault the statement as Gov. Matheson might, "so be it," said Mr. Olson.

Mr. Olson, as well as Gov. Matheson, said Utah will withhold comment on the merits of the statement until the 90-day review period ends. But both Mr. Matheson and Mr. Olson fault estimates of construction workers as low and unrealistic.

"There is a very serious fundamental problem with the draft EIS, and we are very upset, that the labor force numbers are outdated," said Mr. Olson.

"It strikes me that the whole process (in preparing the statement) was done in haste, with lack of thought and lack of attention," said Mr. Olson, who added he was referring to the statement "in many of its aspects."

He said, "You'd expect more for that kind of investment"--\$17 million.

The statement was prepared for the Air Force by HDR Sciences, Santa Barbara, Calif., and when it was released in Utah, at a press conference at Hill Air Force Base, it was described by an HDR economist, Robert D. Niehaus, as defensible.

In essence, the statement reads that there will, indeed, be huge environmental, social and probably boom-and-bust economic assaults on Utah and Nevada, but many of these impacts can be mitigated.

Had the Air Force wished for a whitewash, the Pentagon would have selected another contractor, Dr. Niehaus told reporters.

The Air Force and HDR appear to be following, literally, guidelines set by the Council on Environmental Quality insofar as only rough impact assessments are made with regard to locales where MX might be deployed. Under the council's guidelines, these holes can be filled in as the MX system picture becomes more clear, this done via supplements months or perhaps years from now.

"That's dumb," said Mr. Olson.

The environmental impact statement process is "tiered," and by necessity, said Col. Ken Vandillen of the Pentagon MX office. These early descriptions of impact, in some cases in the EIS, are less than precise because impact in Milford, for example, cannot be anticipated because it is not known how Milford will want to respond to the MX influx. That is, what housing accommodations there might be, and the uncertainty over the ultimate handling of construction workers--whether or

not they will be ferried to the job sites, bring their families, etc.

But it is the construction force estimate--and the variety of estimates--in the statement that most bothers Gov. Matheson and Mr. Olson.

#### ON A UTAH HERBARIUM INDEX

by  
Stanley L. Welsh

For many years there has existed a gap in the knowledge of Utah plant taxonomy--no single published treatment has included the names of Utah's plant species alone. The work by Holmgren and Reveal (1966) treated the Utah plant names within the context of a larger list for the Intermountain region. Nomenclatural changes and new taxa published since 1966 have not been summarized previously.

Estimates of plant species number within the state have been "best guess" deliberations at best. Only with the research leading to production of a preliminary listing of plants of Utah has it been possible to provide statistical information which is more than an "order of magnitude" estimate.

Names involved within the Utah flora were compiled from monographs, revisions, and floras, and from examination of specimens in the herbarium at Brigham Young University. The names were entered into a "data base management system" in a mini-computer with word-processing capability. Data entered include genus, species and author, ssp. or var. and author, family, synonyms, Utah type, herbarium, bibliographical citation, rarity, and origin. Almost 5200 names were programed into the computer.

A query of the information in the computer yielded the following preliminary data on indigenous, cultivated, and adventive taxa within Utah.

	Sp.	ssp. & var.	Total
Indigenous	2575	325	2900
Cultivated	371	4	375
Adventive	325		325
Total Utah Flora	<u>3271</u>	<u>329</u>	<u>3600</u>

The figures should not be taken as final, because of gaps in data. Cultivated taxa are poorly represented in herbaria, and they are seldom treated in monographic or revisionary works.

Indigenous taxa have a diversity index (Area  $\div$  Total taxa) of 1 species/28 sq. mi. (or 1 species/74 sq. km). Use of the diversity index (DI) allows for comparison of relative richness of floras. The Alaska-Yukon-British Columbia region included within the Alaskan flora (Welsh 1974) includes some 1500 species of vascular plants in about 800,000 square miles, or a DI of 1 sp/533 sq. mi. Adjacent British Columbia (area 366,000 sq. mi.) has about 2400 species, or a DI of 1 sp/152 sq. mi.

The following chart gives DI ratings for some western states, granted that comparisons are probably invalid due to inclusion of adventive species in other lists.

	Species	Taxa	DI
Arizona	3370		1 sp./34 sq. mi.
Utah	2575		1 sp./33 sq. mi.
Colorado		3145	1 T/33 sq. mi.
Texas		5479	1 T/48 sq. mi.
Utah		2900	1 T/28 sq. mi.

The diversity index applied to total species in Arizona and Utah (although preliminary) gives equivalent numbers and is used due to lack of total taxa figures. When total taxa are compared for Utah, Colorado, and Texas it is apparent that the flora of Utah is the richer on a unit area basis.

Further work and analysis of reasons for floral diversity is indicated.

#### GARDEN LECTURE SERIES

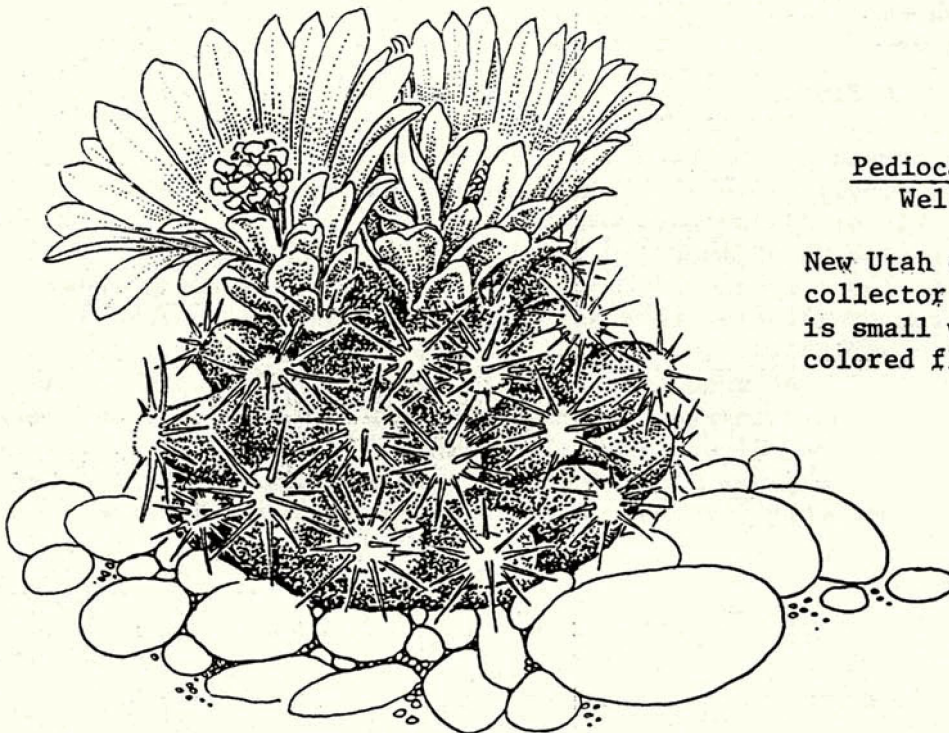
University of Utah Campus, The Den (in Olpin Union Bldg.) at 7:00 p.m.

January 20: Bonsai (possibly using native plants)  
Speaker - Gary Sellick

February 17: Container Gardening (veg. grow box)  
Speaker - Peter Nackowski

March 17: Rare and Endangered Species  
Speaker - Dr. Duane Atwood

April 21: Poisonous and Edible Plants  
Speaker - Bill Varga



Pediocactus despainii  
Welsh and Goodrich

New Utah cactus named for collector Kim Despain. Plant is small with bronze-salmon colored flowers.

It's a brand new year, and time to renew your membership in the Utah Native Plant Society for 1981. The membership schedule is unchanged from 1980 at:

Life Membership	\$ 250.00
Supporting	25.00
Students	4.00/year
Senior Citizens	4.00/year
Individual	8.00/year
Family	12.00/year

Remember that the Society's only support is from your membership, dues and gifts; and that all such amounts are fully tax deductible.

Please send your dues to either:

Duane Atwood, President  
Utah Native Plant Society  
4054 Juniper Drive  
Cedar Hills, Utah 84062

or

Glenn Halliday, Treasurer  
Utah Native Plant Society  
3043 Brighton Place  
Salt Lake City, Utah 84121

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1981 MEMBERSHIP DUES FOR UTAH NATIVE PLANT SOCIETY

-----\$12.00 Family Membership	-----\$8.00 Individual Membership
-----\$4.00 Student Membership	-----\$4.00 Senior Citizen Membership
-----\$25.00 Supporting Membership	-----\$250.00 Life Membership

NAME \_\_\_\_\_ PHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_

Street

-----  
City

State

Zip Code

Please make checks payable to: UTAH NATIVE PLANT SOCIETY



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# UTAH NATIVE PLANT SOCIETY

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February 1981

UNPS Officers - 1981

President - Duane Atwood (until March 1981)

Barbara Halliday (beginning March 1981)

Vice President -

Secretary - Dave Anderson

Treasurer - Glen Halliday

## ANNOUNCEMENTS

### SOILS FOR PROPOGATION OF NATIVES AND GARDEN CULTURE

Presentation by Linnis Mills

Salt Lake City Chapter Meeting

7:00 p.m., February 26, 1981

Room 101, Chemistry Building, Univ. of Utah

The UNPS will again have a booth at the annual Home and Garden festival to be held at the Salt Palace in Salt Lake City, Feb. 26 - March 1. Volunteers are needed to man the booth during the following times. Contact Dave Anderson (572-2139) if you can help.

SET UP BOOTH	(Wed) Feb. 25 - 2:00 p.m. - 9:30 p.m.
	(Thu) Feb. 26 - early morning
SHOW OPENS:	(Thu) Feb. 26 - 2:00 p.m. - 9:30 p.m.
	(Fri) 27 - 10:00 a.m. - 9:30 p.m.
	(Sat) 28 - 12:00 noon - 9:30 p.m.
	(Sun) Mar. 1 - 12:00 noon - 8:00 p.m.

## MEETING REPORT - UTAH RARE PLANTS

- Elizabeth Neese

A meeting, sponsored by the Utah Native Plant Society, was held on January 24, 1981 to conduct an annual reevaluation of the status of Utah's rare plants. Reevaluation on a regular basis is necessary because activities such as mining, energy development, and change in land ownership continuously alter location and degree of threat to habitat. Also, as new biological information is accumulated, interpretation of degree of endangerment changes. New populations may be discovered or distribution or extent of known populations may be demonstrated to be larger or smaller than first thought. Attending the meeting were the following botanists and federal agency personnel:

Duane Atwood - USFS, Provo  
John Anderson - USFWS, Denver, Colo.  
Fred Bolwahn - USFWS, Salt Lake City  
Jerry Farringer - BLM State Office  
Sherel Goodrich - USFS, Shrub Lab, Provo  
Larry Greenwood - BLM, Richfield  
Ron Kass - Brigham Young Univ.

Elizabeth Neese, Brigham Young Univ.  
J. L. Schultz - Utah State Univ.  
Leila Schultz - Utah State Univ.  
Robert Thompson - USFS, Price  
Kaye Thorne - Brigham Young Univ.  
Daryll Trotter - BLM, Moab  
Stanley L. Welsh - Brigham Young Univ.

Recommendations regarding Utah's rare plants were drawn up by the committee following review of information accumulated during the preceding year. These recommendations are listed below.

The following species are considered of highest priority. Not only are they among the rarest of our species, but are believed subject to current threat or endangerment from various sources. Available funding in the endangered plant program should be directed toward achievement of earliest possible listing.

Priority

High 1. a. (sufficient data available for rule-making)	b. (prompt additional study required)
<i>Asclepias welshii</i>	<i>Astragalus cronquistii</i>
<i>Cryptantha barnebyi</i>	<i>Astragalus harrisonii</i>
<i>Cryptantha compacta</i>	<i>Castilleja aquariensis</i>
<i>Cryptantha ochroleuca</i>	<i>Cymopterus minimus</i>
<i>Cycladenia humilis</i>	<i>Erigeron conquistii</i>
var. <i>jonesii</i>	<i>Erigeron proselyticus</i>
<i>Erigeron kachinensis</i>	<i>Eriogonum loganum</i>
<i>Erigeron maguirei</i>	<i>Eriogonum natum</i>
<i>Eriogonum ammophilum</i>	<i>Gilia caespitosa</i>
<i>Glaucocarpum suffrutescens</i>	<i>Heterotheca jonesii</i>
<i>Lepidium barnebyanum</i>	<i>Lepidium montanum</i>
<i>Lepidium ostleri</i>	var. <i>neeseae</i>
<i>Lesquerella tumulosa</i>	<i>Pediocactus despainii</i>
<i>Primula maguirei</i>	<i>Pediocactus winkleri</i>
<i>Townsendia aprica</i>	<i>Penstemon bracteatus</i>
<i>Trifolium andersonii</i>	<i>Penstemon wardii</i>
var. <i>friscanum</i>	

Of nearly equal urgency is protection for species on the following list. They are of generally similar rarity. Potential threats may be slightly less immediate.

High 2. <i>Astragalus hamiltonii</i>	<i>Najas caespitosus</i>
<i>Astragalus holmgreniorum</i>	<i>Penstemon grahamii</i>
<i>Astragalus iselyi</i>	<i>Penstemon leptanthus</i>
<i>Astragalus lentiginosus</i>	<i>Penstemon navajoa</i>
var. <i>ursinus</i>	<i>Phacelia indecora</i>
<i>Astragalus uncialis</i>	<i>Psoralea epipsila</i>
<i>Castilleja revealii</i>	<i>Psorothamnus polyadenius</i>
	var. <i>jonesii</i>
<i>Eriogonum corymbosum</i>	<i>Ranunculus acriformis</i>
var. <i>matthewsiae</i>	var. <i>aestivalis</i>
<i>Eriogonum humivagans</i>	<i>Sphaeralcea psoraloides</i>
<i>Lepidium montanum</i>	<i>Sclerocactus pubispinus</i>
var. <i>stellae</i>	<i>Thelypodopsis argillacea</i>

Species on the following list are rare and at least potentially threatened. They should also be considered for listing. As work on highest priority species is accomplished, funding and effort should be directed to these rare plants.

Medium. <i>Allium passeyi</i>	<i>Astragalus subcinereus</i>
<i>Astragalus chloodes</i>	var. <i>basalticus</i>
<i>Astragalus sabulosus</i>	<i>Cryptantha johnstonii</i>
<i>Astragalus striatiflorus</i>	<i>Castilleja parvula</i>

Draba maguirei	Lygodesmia entrada
var. burkei	Machaeranthera kingii
Epilobium nevadense	Mentzelia argillosa
Erigeron mancus	Musineon lineare
Erigeron sionis	Penstemon compactus
Eriogonum aretioides	Penstemon concinnus
Eriogonum clavellatum	Penstemon nanus
Eriogonum cronquistii	Phacelia utahensis
Eriogonum smithii	Senecio dimorphophyllus
Hedysarum occidentale	Silene petersonii
var. canone	var. minor
Hymenoxys depressa	Sphaeromeria ruthiae

The following list includes species which are known to be rare or of very narrow distribution, and species for which additional information regarding rarity is needed. They may become imminently endangered if substantial portions of their habitat are altered or if population size decreases. Monitoring of populations and retention of the species on lists for possible future listing is recommended.

Low.	Angelica wheeleri	Eriogonum panguicense
	Aquilegia barnebyi	var. panguicense
	Astragalus ampullarius	Festuca dasyclada
	Astragalus barnebyi	Gaillardia flava
	Astragalus consobrinus	Heliomeris soliceps
	Astragalus henrimontanensis	Hymenoxys helenioides
	Astragalus malacoides	Lesquerella rubicundula
	Astragalus monumentalis	Lomatium junceum
	Astragalus rafaelensis	Lomatium minimum
	Astragalus saurinus	Penstemon angustifolius
	Atriplex welshii	var. vernalensis
	Cryptantha elata	Penstemon atwoodii
	Cryptantha grahamii	Penstemon dolius
	Cryptantha jonesiana	var. duchesnensis
	Cymopterus coulteri	Penstemon goodrichii
	Cymopterus higginsii	Penstemon parvus
	Draba asprella	Penstemon patricus
	var. zionensis	Penstemon tidestromii
	Draba sobolifera	Phacelia anelsonii
	Draba maguirei	Psoralea pariensis
	var. maguirei	Silene petersonii
	Eriogonum ephedroides	var. petersonii
	Eriogonum eremicum	Sphaeralcea caespitosa
	Eriogonum jamesii	Sphaeralcea leptophylla
	var. rupicola	var. janeae
	Eriogonum nanum	Sphaeromeria capitata
	Parrya rydbergii	Xylorhiza confertifolia

There are several rare or unusual species whose continued existence in the state may be in jeopardy but which are not candidate for Federal listing. They may have more extensive distribution elsewhere, or may have numerous widely scattered small populations. Suggested for inclusion in a Utah state sensitive list, in addition to ones listed above, are:



Achyronychia cooperi	Coryphantha missouriensis
Andropogon glomeratus	var. marstonii
Asclepias cutleri	Cryptantha longiflora
Astragalus barnebyi	Cyripedium calceolus
Astragalus bodinii	var. parviflorum
Astragalus bryantii	Cyripedium fasciculatum
Astragalus callithrix	Dalea epica
Astragalus canadensis	Echinocactus polycephalus
var. canadensis	var. xeranthemoides
Astragalus cottamii	Eriogonum grayii
Astragalus desereticus	Euphorbia nephradenia
Astragalus diversifolius	Gaultheria humifusa
Astragalus emoryanus	Gilia latifolia
Astragalus eucosmus	Gilia tridactyla
Astragalus gilviflorus	Hedysarum boreale
Astragalus hallii	var. gremiale
var. fallax	Kobresia simpliciuscula
Astragalus jejunus	Lepidium integrifolium
Astragalus limnocharis	Lepidospartum latisquamum
Astragalus lutosus	Lesquerella garrettii
Astragalus monumentalis	Leucocrinum montanum
Astragalus nidularius	Listera borealis
Astragalus pinonis	Lomatium latilobum
Astragalus rafaelensis	Mimulus eastwoodiae
Atriplex hymenelytra	Nymphaea odorata
Atriplex welshii	Ostrya knowltonii
Berberis fendleri	Penstemon petiolatus
Betula utahensis	Penstemon uintahensis
Botrychium boreale	Portulaca mundula
Botrychium lanceolatum	Psoralea thompsonae
Botrychium lunaria	var. whitingii
Botrychium simplex	Rubus neomexicanus
Buddleja utahensis	Yucca toftiae
Camissonia megalantha	Yucca schidigera
Carex leptalea	Zigadenus vaginatus
Carex microglochin	

In addition to species listed above, there exist several newly discovered taxa that are very rare and may require protection. Descriptions of these new taxa are being prepared or have been accepted for publication. Consideration for federal listing of these species should await formal publication of their names and descriptions according to the rules of botanical nomenclature.

NOTE: The Department of Interior has recently published a Review of Plant Taxa for Listing as Endangered or Threatened Species (Federal Register, Part IV, Dec. 15, 1980). The listing of Utah plants in that publication is:

Taxa currently listed	8
Taxa currently proposed	0*
Taxa currently under review	147
Taxa no longer under review	70

\*An Astragalus species has now been proposed as endangered. Astragalus montii (Heliotrope milkvetch) has been officially proposed to be determined an Endangered

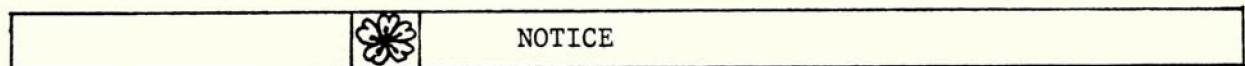
species (Fédéral Register, Vol. 46, No. 8, Jan. 13, 1981). A copy of the four-page proposed rule-making is available through the USFW State Office. Comments relative to the proposed rule-making are solicited. A public meeting relative to the proposal will be held at the courtroom of the County Courthouse, 5 South Main St., Nephi, Utah, 7:00 p. m., February 18, 1981. Comments must be received by April 13, 1981. Comments and materials concerning this proposal should be sent to the Regional Director (SE), U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, Colorado 80225.

The following taxa have achieved final official listing:

Arctomecon humilis, dwarf bearpoppy - endangered  
Astragalus perianus, Rydbery milkvetch - threatened  
Echinocereus engelmannii var. purpureus, purple-spined hedgehog  
cactus - endangered  
Echinocereus triglochidiatus var. inermis, spineless hedgehog  
cactus - endangered  
Pediocactus sileri, Siler pincushion cactus - endangered  
Phacelia argillacea, clay phacelia - endangered  
Sclerocactus glaucus, hookless fishhook cactus - threatened  
Sclerocactus wrightiae, Wright fishhook cactus, endangered

#### RARE SPECIES OF MOSSES

A list of rare mosses of Utah has been compiled by Leila Shultz, Intermountain Herbarium, Utah State University. It includes nine species in six families. Localities where these uncommon plants have been collected are widely distributed, and include the Uinta Mountains, the shore of the Great Salt Lake, Mt. Timpanogos, the Wasatch Mountains, the Henry Mountains, and sand bluffs in southeastern Utah.



Meeting dates for the SLC Chapter of the UNPS are set for the 4th Thursday of each month, with the following exceptions: June, July, and August meeting dates are held open pending announcement. The November meeting will be on November 19 rather than on November 26 to avoid conflict with Thanksgiving holidays. No December meeting is scheduled. Meetings will routinely be held at 7:00 p.m. in Room 112, Chemistry Building, University of Utah.

NOTE: The new president of the Salt Lake City Chapter of the Utah Native Plant Society is Lester Shields. Andy Shaw is the new vice president. Chapter committee members are to be appointed.

## STARTING A CHAPTER OF UNPS

- Duane Atwood

A chapter can be started by as few as 15 members but it is advisable to have a base of at least 25 to make it easier to organize and maintain a functioning chapter.

If you are considering forming a chapter and would like to know who in your area is already a member of UNPS, send a request to the Society's Membership Chairman:

Dr. Dave Anderson  
1050 E. Oakridge Circle  
Sandy, Utah 84070

The UNPS members on the list you will receive and any other people you wish to join your proposed chapter should be sent an inquiry as to whether they wish to become members of the new chapter. Those who wish to become chapter members should respond in writing of their intention.

After determination of the initial membership there must be a formal organizational meeting; at this meeting officers are elected and a name for the chapter is chosen. Only three officers are required of a new chapter: president, vice president, and secretary/treasurer. The more people who can be assigned to handle specific functions without too much overlap, the easier it is to expand the chapter and to maintain its work. A chapter must have six meetings a year. Field trips count as meetings but usually chapters will need several meetings other than field trips to conduct business, to attract attention to the work of the chapter, and to keep members interested in maintaining the chapter.

After these formal requirements for organizing a new chapter are completed, the chapter is ready to petition for acceptance. A written request for admission as a chapter, including the following information, must be sent to the state-wide secretary of the Society (presently, Dave Anderson, 1050 E. Oakridge Circle, Sandy, Utah 84070):

1. Names, addresses, and membership categories of members of the proposed chapter. All must be members of the Society when the petition for chapter status is submitted, although they need not be members while the chapter is being formed.
2. Names, addresses and telephone numbers of chapter officers, including the name of the person to whom membership information is to be sent.
3. The name of the chapter itself and the area it proposes to cover.

The petition is then voted on by the Society's executive committee or by the Board of Directors, whichever meets first.

The chapter may wish to adopt a symbol or logo of a native plant. Chapters are not required to have formal by-laws, but may find them useful as they become larger and more active.

If at any time a chapter finds it cannot maintain active status, the president of the Society should be notified and such a chapter can be placed on inactive status. When a chapter wishes to be reactivated, the Society's Secretary must

be notified. After proper notification of intent to reactivate a chapter the steps are the same as for starting a new chapter, and the chapter is readmitted to active status the same way. When a chapter becomes inactive the membership chairman of the Society should be notified of any arrangements made to reassign members of the inactive chapter to other chapters.

Dues are paid on the basis of a calendar year and are due in January of each year. Each chapter is expected to provide monies for its own activities. Each new chapter may ask for a subvention of Society dues for each eligible chapter member at the time of admission. The subvention currently paid is 20% of the state membership dues. Chapters can augment their incomes through fund-raising projects.

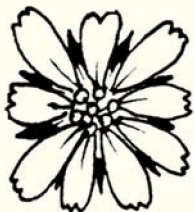
There are no restrictions on the activities of local chapters so long as they do not conflict with the purposes and goals of the Society. The UNPS, in general, follows the chapter guidelines established by the California Native Plant Society as published in their 1977 handbook.

#### CALENDAR OF EVENTS

Feb. 26: Salt Lake UNPS Chapter Meeting. 7:00 p.m., Rm 101, Chem Bldg. U. of Utah.

Feb. 26 - March 1: Home and Garden Show, Salt Palace, Salt Lake City.

GARDEN LECTURE SERIES: Univ. of Utah, The Den (Olpin Union Bldg.), 7:00 p.m.



March 17: Rare and Endangered Species  
Speaker - Dr. Duane Atwood

April 21: Poisonous and Edible Plants  
Speaker - Bill Varga

REMINDER: Send your membership dues to: Glenn Halliday, Treasurer  
Utah Native Plant Society  
3043 Brighton Place  
Salt Lake City, Utah 84121

#### Membership Schedule:

Life Membership	\$ 250.00
Supporting	25.00
Students	4.00/year
Senior Citizens	4.00/year
Individual	8.00/year
Family	12.00/year

(Make Checks payable to: Utah Native Plant Society)

A UNPS Board of Directors' Meeting held on January 22 discussed duties and membership of the various committees of the Society. A summary of the results of the meeting follows:

- |                                      |  |
|--------------------------------------|--|
| Newsletter Committee                 | Committee Chairmen: Kaye Thorne/Elizabeth Neese<br>Area correspondents are being solicited to contribute material for the newsletter from the various areas of the state. To date our area correspondents are:<br>John Gill - Salt Lake City<br>Bob Thompson - Price<br>Larry Greenwood - Richfield<br>Daryll Trotter - Moab<br>Robert Coombs - St. George |
| Nominating Committee                 | This is an annual temporary committee to be appointed by the President three months prior to the end of each year.   |
| Photography Committee                | To be appointed. (See following article on duties of the Photography Committee).   |
| Outings Committee                    | Responsibility for organization of outings is to be assumed by the individual Chapters.  |
| Rare Plants - Conservation Committee | Committee Chairmen: Stanley Welsh/Irving McNulty<br>Committee member: Sherel Goodrich  |
| Horticulture Committee               | Committee Chairmen: Claire Gabriel/Dick Hildred.<br>This committee is responsible for the plant sale in addition to horticultural activities.  |
| Membership Committee                 | For the time being, the UNPS Secretary will act as Membership Chairman and will maintain a current mailing list.   |
| Program Committee                    | The program for the Annual Meeting is to be developed by the Executive Committee of the UNPS   |
| Publicity Committee                  | Committee Chairmen: Michael Alder/Dick Hildreth  |

NEEDED Interested people to staff the photographic committee.



Few volunteer tasks in the UNPS have greater potential for both service and pleasure than participation in the photographic committee. Whether your interest and talents are artistic, scientific, technical, organizational or purely recreational, there is a spot for you here. Please contact the UNPS president if you wish to volunteer your help or if you have questions or suggestions.

Following is an outline of organization and responsibilities of the committee:

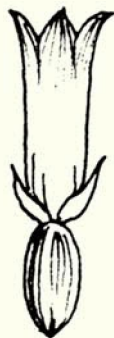
### PHOTOGRAPHY COMMITTEE

- I. Charge: to develop a photo-slide file of native Utah plants to promote the purposes of the society.
- II. Organization
  - A. Consists of a chairman and committee members with photographic interests
  - B. Chairman to be selected by the president and approved by the Board of Directors
  - C. Committee members to be selected by the chairman and approved by the executive committee
  - D. Vacancies to be filled by the president, subject to approval by the Board of Directors.
- III. Responsibilities
  - A. Assemble existing slides and photographs of indigenous Utah plants
  - B. Develop an index of existing slides and photos, and a list of those needed
  - C. Gather slides and photos of historic interest relating to the flora and vegetation types of Utah
  - D. Prepare an annual report on the status of the program and present this report to the executive committee prior to the annual statewide meeting.
  - E. Develop draft guidelines, consistent with rules adopted by the Board of Directors or the bylaws, on use of the slide-photo file by society members and other individuals, organizations, and societies. Some items to be considered are: 1) labeling slides, 2) giving credit to donator, 3) duplication, 4) use of slides by individuals and for educational/public information purposes, 5) loaning slides/time limits, 6) duplication - Draft guidelines shall be submitted to the executive committee for review and then to the Board of Directors for approval.
  - F. Provide information to the newsletter committee as requested or as deemed necessary for keeping society members abreast of program
  - G. Provide for orderly deposition of slides
  - H. Prepare and submit to the executive committee a proposed budget for development of a slide library.

A pappus is a modified calyx. Different types are illustrated.



NONE



SCALES



HAIRS



CROWN



DOUBLE

# UTAH NATIVE PLANT SOCIETY

Newsletter  
March 1981

## UNPS OFFICERS -- 1981

Chairman, Board of Directors -- W. Richard Hildreth, 2669 E. Willowick Drive, Sandy, UT 84070  
President -- Barbara Halliday, 3043 Brighton Place, SLC, UT 84121  
Past President -- Duane Atwood, 4054 W. Juniper Drive, Cedar Hills, UT 84062  
Secretary -- David Anderson, 1050 E. Oakridge Circle, Sandy, UT 84070  
Treasurer -- Glenn Halliday, 3043 Brighton Place, SLC, UT 84121  
President, SLC Chapter -- Lester Shields, 1228 East 700 South, SLC, UT 84102



Penstemon  
utahensis

## DATES TO REMEMBER

ARBORETUM DAY, May 1. There will be a special program featuring the director of the Denver Botanic Gardens, Merle M. Moore. He will discuss the development of botanic gardens. On this day there will be also a display of silk-screened native, exotic, and regional plants by artist Jene Bauer, from Running Springs, California. It promises to be an excellent show.

PLANT SALE, May 30, at the Arboretum. Mark your calendar - here's a chance to add some interesting plants to your garden.

GARDEN LECTURE SERIES: Univ. of Utah, The Den (Olpin Union Bldg.), 7:00 p.m.  
April 21: Poisonous and Edible Plants - Speaker, Bill Varga



## !IMPORTANT NOTICE!

This is the last issue of the newsletter that we can afford to send to those who have not yet paid their dues. If you wish to continue to receive the UNPS Newsletter, send your membership dues NOW!

Send your membership dues to: Glenn Halliday, Treasurer  
Utah Native Plant Society  
3043 Brighton Place  
Salt Lake City, Utah 84121

### Membership Schedule:

Life Membership	\$ 250.00
Supporting	25.00
Students	4.00/year
Senior Citizens	4.00/year
Individual	8.00/year
Family	12.00/year

(Make Checks payable to: Utah Native Plant Society)

## EXCERPT

STEEL RAILS - by John Muir  
Houghton Mifflin Co. Edited by William Frederic Bade

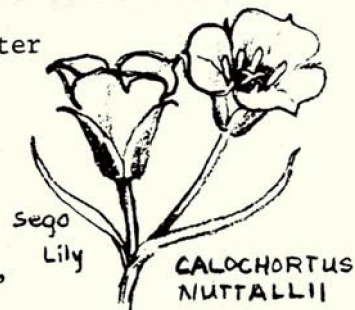
Chapter IX - MORMON LILIES<sup>1</sup>

Lilies are rare in Utah; so also are their companions the ferns and orchids, chiefly on account of the fiery saltness of the soil and climate. You may walk the deserts of the Great Basin in the bloom time of the year, all the way across from the snowy Sierra to the snowy Wahsatch, and your eyes will be filled with many a gay malva, and poppy, and abronia, and cactus, but you may not see a single true lily, and only a very few liliaceous plants of any kind. Not even in the cool, fresh glens of the mountains will you find these favorite flowers, though some of these desert ranges almost rival the Sierra in height. Nevertheless, in the building and planting of this grand Territory the lilies were not forgotten. Far back in the dim geologic ages, when the sediments of the old seas were being gathered and outspread in smooth sheets like leaves of a book, and when these sediments became dry land, and were baked and crumbled into the sky as mountain-ranges; when the lava-floods of the Fire Period were being lavishly poured forth from innumerable rifts and craters; when the ice of the Glacial Period was laid like a mantle over every mountain and valley -- throughout all these immensely protracted periods, in the throng of these majestic operations, Nature kept her flower children in mind. She considered the lilies, and, while planting the plains with sage and the hills with cedar, she has covered at least one mountain with golden erythroniums and fritillarias as its crowning glory, as if willing to show what she could do in the lily line even here.

Looking southward from the south end of Salt Lake, the two northmost peaks of the Oquirrh Range are seen swelling calmly into the cool sky without any marked character, excepting only their snow crowns, and a few small weedy-looking patches of spruce and fir, the simplicity of their slopes preventing their real loftiness from being appreciated. Gray, sagey plains circle around their bases, and up to a height of a thousand feet or more their sides are tinged with purple, which I afterwards found is produced by a close growth of dwarf oak just coming into leaf. Higher you may detect faint tintings of green on a gray ground, from young grasses and sedges; then come the dark pine woods filling glacial hollows, and over all the smooth crown of snow.

While standing at their feet, the other day, shortly after my memorable excursion among the salt waves of the lake, I said: "Now I shall have another baptism. I will bathe in the high sky, among cool wind-waves from the snow." From the more southerly of the two peaks a long ridge comes down, bent like a bow, one end in the hot plains, the other in the snow of the summit. After carefully scanning the jagged towers and battlements with which it is roughened, I determined to make it my way, though it presented but a feeble advertisement of its floral wealth. This apparent barrenness, however, made no great objection just then, for I was scarce hoping for flowers, old or new, or even for fine scenery. I wanted in particular to learn what the Oquirrh rocks were made of, what trees composed the curious patches of forest; and, perhaps more than all, I was antimated by a mountaineer's eagerness to get my feet into the snow once more, and my head into the clear sky, after lying dormant all winter at the level of the sea.

But in every walk with Nature one receives far more than he seeks. I had not gone more than a mile from Lake Point ere I found the way profusely decked with flowers, mostly compositae and purple leguminosae, a hundred corollas or more to the square yard, with a corresponding abundance of winged blossoms above them, moths and butterflies, the leguminosae of the insect kingdom. This floweriness is maintained with delightful variety all the way up through rocks and bushes to the snow -- violets, lilies, gillias, oenotheras, wallflowers, ivesias, saxifrages, Smilax, and miles of



<sup>1</sup>Letter dated "Salt Lake, July, 1877." [Editor.]

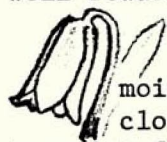


blooming bushes, chiefly azalea, honeysuckle, rier rose, buckthorn, and eriogonum, all meeting and blending in divine accord.

Two liliaceous plants in particular, Erythronium grandiflorum and Fritillaria pudica, are marvelously beautiful and abundant. Never before, in all my walks, have I met so glorious a throng of these fine showy liliaceous plants. The whole mountain-side was aglow with them, from a height of fifty-five hundred feet to the very edge of the snow. Although remarkably fragile, both in form and in substance, they are endowed with plenty of deep-seated vitality, enabling them to grow in all kinds of places -- down in leafy glens, in the lee of windbeaten ledges, and beneath the brushy tangles of azalea, and oak, and prickly roses -- everywhere forming the crowning glory of the flowers. If the neighboring mountains are as rich in lilies, then this may well be called the Lily Range.

After climbing about a thousand feet above the plain I came to a picturesque mass of rock, cropping up through the underbrush on one of the steepest slopes of the mountain. After examining some tufts of grass and saxifrage that were growing in its fissured surface, I was going to pass it by on the upper side, where the bushes were more open, but a company composed of the two lilies I have mentioned were blooming on the lower side, and though they were as yet out of sight, I suddenly changed my mind and went down to meet them, as if attracted by the ringing of their bells. They were growing in a small, nestlike opening between the rock and the bushes, and both the erythronium and the fritillaria were in full flower. These were the first of the species I had seen, and I need not try to tell the joy they made. They are both lowly plants, -- lowly as violets, -- the tallest seldom exceeding six inches in height, so that the most searching winds that sweep the mountains scarce reach low enough to shake their bells.

The fritillaria has five or six linear, obtuse leaves, put on irregularly near the bottom of the stem, which is usually terminated by one large bell-shaped flower; but its more beautiful companion, the erythronium, has two radical leaves only, which are large and oval, and shine like glass. They extend horizontally in opposite directions, and form a beautiful glossy ground, over which the one large down-looking flower is swung from a simple stem, the petals being strongly recurved, like those of Lilium superbum. Occasionally a specimen is met which has from two to five flowers hung in a loose panicle. People oftentimes travel far to see curious plants like the carnivorous darlingtonia, the fly-catcher, the walking fern, etc. I hardly know how the little bells I have been describing would be regarded by seekers of this class, but every true flower-lover who comes to consider these Utah lilies will surely be well rewarded, however long the way.



Pushing on up the rugged slopes, I found many delightful seclusions -- moist nooks at the foot of cliffs, and lilies in every one of them, not growing close together like daisies, but well apart, with plenty of room for their bells to swing free and ring. I found hundreds of them in full bloom within two feet of the snow. In winter only the bulbs are alive, sleeping deep beneath the ground, like field mice in their nests; then the snow-flowers fall above them, lilies over lilies, until the spring winds blow, and these winter lilies wither in turn; then the hiding erythroniums and fritillarias rise again, responsive to the first touches of the sun.

I noticed the tracks of deer in many places among the lily gardens, and at the height of about seven thousand feet I came upon the fresh trail of a flock of wild sheep, showing that these fine mountaineers still flourish here above the range of Mormon rifles. In the planting of her wild gardens, Nature takes the feet and teeth of her flocks into account, and makes use of them to trim and cultivate, and keep them in order, as the bark and buds of the tree are tended by woodpeckers and linnets.

The evergreen woods consist, as far as I observed, of two species, a spruce and a fir, standing close together, erect and arrowy in a thrifty, compact growth; but they are quite small, say from six to twelve or fourteen inches in diameter, and about forty feet in height. Among their giant relatives of the Sierra the very largest

would seem mere saplings. A considerable portion of the south side of the mountain is planted with a species of aspen, called "quaking asp" by the wood-choppers. It seems to be quite abundant on many of the eastern mountains of the basin, and forms a marked feature of their upper forests.

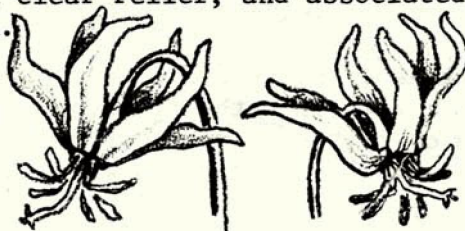
Wading up the curves of the summit was rather toilsome, for the snow, which was softened by the blazing sun, was from ten to twenty feet deep, but the view was one of the most impressively sublime I ever beheld. Snowy, ice-sculptured ranges bounded the horizon all around, while the great lake, eighty miles long and fifty miles wide, lay fully revealed beneath a lily sky. The shore-lines, marked by a ribbon of white sand, were seen sweeping around many a bay and promontory in elegant curves, and picturesque islands rising to mountain heights, and some of them capped with pearly cumuli. And the wide prairie of water glowing in the gold and purple of evening presented all the colors that tint the lips of shells and the petals of lilies -- the most beautiful lake this side of the Rocky Mountains. Utah Lake, lying thirty-five miles to the south was in full sight also, and the river Jordan, which links the two together, may be traced in silvery gleams throughout its whole course.

Descending the mountain, I followed the windings of the main central glen on the north, gathering specimens of the cones and sprays of the evergreens, and most of the other new plants I had met; but the lilies formed the crowning glory of my bouquet -- the grandest I had carried in many a day. I reached the hotel on the lake about dusk with all my fresh riches, and my first mountain ramble in Utah was accomplished. On my way back to the city, the next day, I met a grave old Mormon with whom I had previously held some Latter-Day discussions. I shook my big handful of lilies in his face and shouted, "Here are the true saints, ancient and Latter-Day, enduring forever!" After he had recovered from his astonishment he said, "They are nice."

The other liliaceous plants I have met in Utah are two species of zigadenus, Fritillaria atropurpurea, Calochortus Nuttallii, and three or four handsome alliums. One of these lilies, the calochortus, several species of which are well known in California as the "Mariposa tulips," has received great consideration at the hands of the Mormons, for to it hundreds of them own their lives. During the famine years between 1853 and 1858, great destitution prevailed, especially in the the southern settlements, on account of drouth and grasshoppers, and throughout one hunger winter in particular, thousands of the eople subsisted chiefly on the bulbs of these tulips, called "sego" by the Indians, who taught them its use.

Liliaceous women and girls are rare among the Mormons. They have seen too much hard, repressive toil to admit of the development of lily beauty either in form or color. In general they are thickset, with large feet and hands, and with sun-browned faces, often curiously freckled like the petals of Fritillaria atropurpurea. They are fruit rather than flower -- good brown bread. But down in the San Pitch Valley at Gunnison, I discovered a genuine lily, happily named Lily Young. She is a granddaughter of Brigham Young, slender and graceful, with lily-white cheeks tinted with clear rose. She was brought up in the old Salt Lake Zion House, but by some strange chance has been transplanted to this wilderness, where she blooms alone, the "Lily of San Pitch." Pitch is an old Indian, who, I suppose, pitched into the settlers and thus acquired fame enough to give name to the valley. Here I feel uneasy about the name of this lily, for the compositors have a perverse trick of making me say all kinds of absurd things wholly unwarranted by plain copy, and I fear that the "Lily of San Pitch" will appear in print as the widow of Sam Patch. But, however this may be, among my memories of this strange land, that Oquirrh mountain, with its golden lilies, will ever rise in clear relief, and associated with them will always be the Mormon Lily of San Pitch.

Dog-tooth  
violet



ERYTHRONIUM  
GRANDIFLORUM

## FEATURED PLANT (OF THE MONTH

ASTRAGALUS UTAHENSIS (TORR.) TORR. &amp; GRAY

FAMILY: Fabaceae (Leguminosae)

ABOUT THE NAME: The Greek word astragalos, ankle-bone or (when plural) dice, was early applied to some leguminous plant, and may be in reference to the rattling of seeds within an inflated pod (from A California Flora, Munz & Keck). The name utahensis means "of Utah".

TYPE: The specimen on which the description of the taxon is based was collected from the "West shore of Great Salt Lake," on June 24, 1850, by Howard Stansbury, early explorer, and named by John Torrey, who described plants from many of the early exploring expeditions. Its original name was Phaca mollissima var. utahensis.

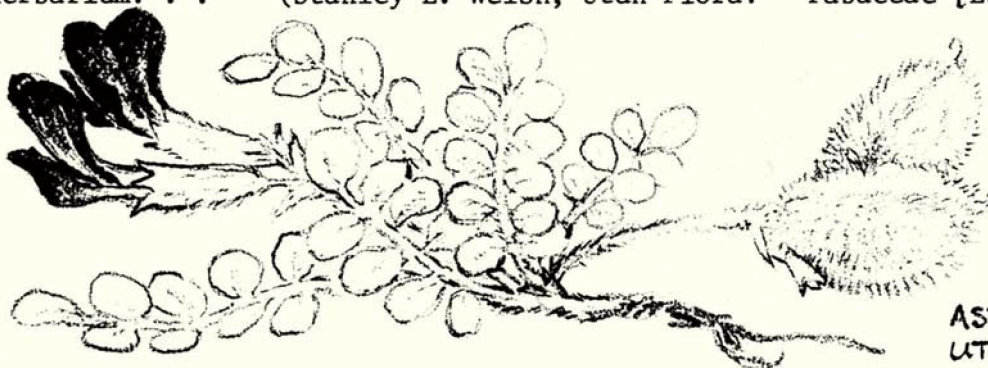
DESCRIPTION: The Utah milkvetch is a nearly stemless perennial to about 12 cm tall, with several several spreading branches; the leaves are mostly 5-10 cm long and are pinnately compound with numerous densely soft-hairy rounded leaflets about 1 cm long. Several flowers are borne on each raceme. They are about 2-3 cm long, bright pink-purple, and somewhat resemble sweetpea flowers. The pods are more-or-less ellipsoid, about 3 cm long, but are obscured by whitish, woolly or shaggy hairs. It is an early bloomer, starting to flower in April, and grows almost throughout Utah except for the southeastern portion, as well in Idaho and Nevada. It is most commonly found in sagebrush, pinyon-juniper, mountain brush, or grassland communities below 7000 ft.

"The Utah milk-vetch was singled out by [Marcus] Jones as the state's most beautiful flower; at very least it is one of the region's most ornamental astragali. The generously proportioned and richly colored flowers are set off to advantage by the cottony tomentum of the foliage, and the pods, which so greatly excited the admiration of the early collectors on account of the dense silken vesture, are at once curious and handsome. . ."

"According to Stapf (in Curtis, Bot. Mag. Tab. 9302. 1933) the Utah milkvetch was in English gardens about 1926, but it seems to have been lost to cultivation subsequently. The Argophylli [the section to which the species belongs] are potentially perennial but are of rapid growth and short duration even in nature; under garden conditions they thrive only briefly and often fail to produce viable seed." (Rupert C. Barney, Atlas of North American Astragalus).

and:

". . . The Utah milkvetch is known locally as 'lady'slipper,' because of fancied resemblance of the large flowers to softly cushiony house-slippers. The plants are abundant along the Wasatch front, where they flower in April and May, much to the delight of beginning students in taxonomy, each of whom feels compelled to collect at least one plant and deposit in in a herbarium. . . " (Stanley L. Welsh, Utah Flora: Fabaceae [Leguminosae]).



ASTRAGALUS  
UTAHENSIS

Last month's newsletter included an outline of organization and responsibilities of the Photography Committee. This month we will summarize similarly the organization and responsibilities of the Membership and Horticultural Committees.



HORTICULTURAL COMMITTEE

- I. Purpose: To promote education in the use of native plants for landscaping.
- II. Organization
  - A. Horticultural education subcommittee.
  - B. Plant and seed sale subcommittee.
  - C. Each subcommittee shall consist of a leader and committee members.
  - D. Leader shall be selected by the president and approved by the executive board; committee members shall be selected by the leader and approved by the executive board.
- III. Responsibilities of horticultural education subcommittee.
  - A. Submit articles for each issue of the Utah Native Plant Society newsletter and to other media.
  - B. Develop educational materials on the landscape merits of specific native plants.
  - C. Compile and disseminate information about seed collection, propagation, planting, culture, and care of native plants. Establish a society library.
  - D. Aid local chapters in conducting workshops, tours, seminars, field trips, and lectures.
  - E. Coordinate with the photography committee.
  - F. Foster research.
  - G. Set up a speakers' bureau.
- IV. Responsibilities of plant and seed sale subcommittee.
  - A. Begin a detailed plant and seed sale procedures handbook.
  - B. Select date.
  - C. Select site.



MEMBERSHIP COMMITTEE

- I. Purpose: To develop and maintain a current list of potential members of the Society; to encourage inactive and potential members to become active and to solicit new members.
- II. Organization:
  - A. The Chairmanship of this committee rests with the State Secretary.
  - B. The Chairman selects committee members as needed to fulfill the purpose and responsibilities of this committee, as approved by the Executive Committee.
- III. Responsibilities:
  - A. Develop and maintain a current list of active, inactive, potential members of the Society, encourage inactive and potential members to become active, and solicit new membership generally.
  - B. Keep membership brochure current.
  - C. Post brochures at universities, college libraries, etc, in coordination with Society chapters.
  - D. Coordinate the membership list with chapter membership committees.
  - E. Coordinate with State Treasurer on membership dues.
  - F. Provide the Newsletter Committee with updated mailing list quarterly. Advise the committee monthly of any changes (additions or deletions) to mailing list.

## WELCOME NEW MEMBERS

Adolph H. Case, 3341 Georgetown Square, SLC, UT, 84109  
 David and Betsy Spoerke, 3848 S. 1860 E, SLC, Ut, 84106  
 Marilyn Smith & Family, 2735 So. 2000 E., SLC, Ut, 84109  
 Anthony J. Frates, P.O. Box 6257, SLC, Ut, 84106  
 Ron Kass, 231 W. 400 N. #1, Provo, UT 84601  
 Lester D. Shields, 1228 East 700 South, SLC, UT, 84102  
 Phil Janik, US Forest Service, Federal Bldg., 324 25th St., Ogden, UT, 84401  
 Al Winward, US Forest Service, Regional Federal Bldg., 324 25th St., Ogden, UT, 84401  
 Debi Engle, 380 N 1020 E #316, Provo, UT, 84601  
 Larry England, 170 South 500 East, Vernal, UT, 84  
 Kathryn M. Mutz, c/o Meiji Resource Consultants, P. O. Box 250, Layton, UT, 84041

## UNPS PARTICIPATION AT SPRING GARDEN SHOW

The State Society once again participated as an exhibitor at the annual Spring Garden Show, held at the Salt Palace, Salt Lake City on February 25--March 1. Our exhibit, featuring some of the Utah Endangered Plant Species, a wildflower identification self-quiz, and color slide program of Utah native plants, was well-received by both the judges of the Show who awarded us a blue ribbon, and by the many thousands of visitors to the Show. We distributed a handout describing the Utah Native Plant Society and soliciting membership from those interested in our activities. Several new memberships have been received as the direct result of this exhibit and many more people in the Salt Lake City area must now be aware of our existence.

With special thanks to those who gave of their time and talents to make this such a successful exhibit: Duane Atwood, Glenn and Barbara Halliday, Dick Hildreth, Janet Mitchell, Elizabeth Neese, Pamela and Marvin Paulson, Lester Shields, and Kaye Thorne.



## ✿ CORRECTIONS

In the February, 1981 UNPS Newsletter, lists of species reflecting the reevaluation of status of Utah's rare plants was presented. The following corrections and additions to these lists are noted:

Low Priority ( Monitoring of populations, and retention on lists for possible consideration for future listing) -- Add Asclepias ruthiae. Delete Astragalus barnebyi and Astragalus monumentalis.

## SOME OF OUR EARLIEST-BLOOMING PLANTS

Elizabeth Neese

Do you head for the hills at the first warm day looking for some green sprig to attest that spring is really on its way? I invariably do; the earliest bloomers I've found consistently over the years on the foothills around Provo and Salt Lake City are now eagerly-greeted old friends.

The mustards, especially introduced annuals, seem especially early bloomers. Ones I've found in March (or even February), often in full fruit by mid April, are Draba cuneifolia, D. nemorosa, D. reptans, and the introduced D. verna. Arabidopsis thaliana and several alyssums, including A. alyssoides, A. desertorum, A. minus, and A. szowitsianum are other Eurasian species which have recently become established in disturbed places in the foothills. The bur buttercup, Ranunculus testiculatus, is perhaps the earliest and commonest of these tiny weedy plants. They have earned the name "belly plants" because they are apt to be overlooked unless one lies flat to look for them.

The early blooming perennials are mostly native. Cymopterus longipes, Orogenia linearifolia, Dicentra uniflora, Ranunculus jovis, Astragalus cibarius, and A. utahensis can usually be found blooming by the last of March or sometimes much earlier.

In protected spots near buildings, in gardens, or along sidewalks Senecio vulgaris, Poa annua, Malva neglecta, and Stellaria media bloom sporadically all winter.

Many of our trees, including aspen, maple, boxelder, and mountain lover (Pachistima myrsinites), are early bloomers; because their flowers are inconspicuous they are sometimes discounted as spring flowers. Try cutting branches of these in January to force into bloom for midwinter arrangements. Mountain lover, with its glossy evergreen leaves and delicate wine-red flowers, is especially lovely.

UNPS  
388 MLBM  
Brigham Young University  
Provo, Utah 84602



# UTAH NATIVE PLANT SOCIETY

NEWSLETTER  
April - May, 1981

## OFFICERS

President:	Barbara Halliday
Vice President (Acting)	Duane Atwood
Secretary	Dave Anderson
Treasurer	Glen Halliday

## BOARD OF DIRECTORS

W. Richard Hildreth, Chairman	Sherel Goodrich
Michael Alder	Art Holmgren
Dave Anderson	Irving B. McNulty
Duane Atwood	Elizabeth Neese
Larry England	Richard J. Page
Claire Gabriel	Leila Schultz
John Gill	Robert Thompson
Barbara Halliday	Stanley L. Welsh
Glenn Halliday	Al Winward

## COMMITTEES

NEWSLETTER	Kaye Thorne/Elizabeth Neese
PHOTOGRAPHY	Pam Poulson
RARE PLANTS-CONSERVATION	Stanley Welsh/Irving McNulty
MEMBERSHIP	Dave Anderson
PUBLICITY	Michael Alder/Dick Hildreth
HORTICULTURE	Claire Gabriel/Dick Hildreth



Penstemon  
urahensis

### ! IMPORTANT NOTICE!

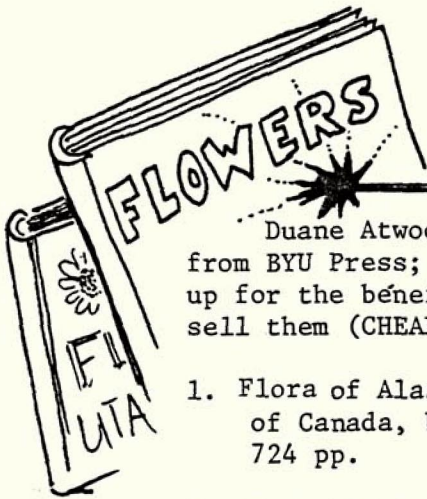
<sup>very</sup>  
This is the last issue of the newsletter that we can afford to send to those who have not yet paid their dues. If you wish to continue to receive the UNPS Newsletter, send your membership dues NOW!

Send your membership dues to: Glenn Halliday, Treasurer  
Utah Native Plant Society  
3043 Brighton Place  
Salt Lake City, Utah 84121

#### Membership Schedule:

Life Membership	\$ 250.00
Supporting	25.00
Students	4.00/year
Senior Citizens	4.00/year
Individual	8.00/year
Family	12.00/year

(Make Checks payable to: Utah Native Plant Society)



!! BOOK SALE !!

Duane Atwood recently came upon a bargain sale of good books from BYU Press; in true entrepreneurial fashion he has snatched them up for the benefit of UNPS. The Utah Native Plant Society will sell them (CHEAPLY) as follows:

- |  |   |
|--|---|
| 1. Flora of Alaska and Adjacent Parts<br>of Canada, by Stanley L. Welsh.<br>724 pp.        | List Price was 29.95<br>Members' Price 5.00<br>Non-members' Price 8.00  |
| 2. Utah Plants, by Stanley L.<br>Welsh & Glen Moore. 474 pp.                               | Hrdbk List Price was 12.95<br>Members' Price 4.00<br>Non-members' Price 6.00<br>Paperbk List Price was 9.95<br>Members' Price 3.00<br>Non-members' Price 5.00 |
| 3. Mosses of Utah and the West, by<br>Seville Flowers. 567pp.<br>(beautifully illustrated) | List Price was 19.95<br>Members' Price 5.00<br>Non-members Price 8.00   |

For the moment we'll try not to get into mailing books (wrapping, labeling, postage, and all that). They will be available at the next SLC Chapter meeting (28 May, Rm 112 Chemistry Bldg., U. of U.). If you just can't get in then call Barbara Halliday 943-4286 evenings, and we'll try to arrange something

Also - tell your friends. They can join UNPS and get the three books for the same price as non-members pay for books alone!

NOTEWORTHY RECORDS OF UTAH FLORA

Bob Thompson, of the U.S. Forest Service, Price, has provided the herbarium at Brigham Young University with a specimen of Melica porteri, collected by him from the Abajo Mountains in San Juan County. This species of melic grass is known from Arizona, Colorado, New Mexico, and Texas, but apparently has not been previously known from Utah.

Bob has discovered, in addition, Lomatium grayi in the La Sal Mountains, a record representing a range extension of about 200 miles. This species of "desert parsley" or "biscuitroot" is known principally from northern and western Utah, the nearest station being in Sanpete County.

The collection of Kobresia simpliciuscula by Mont Lewis from Scad Valley meadow in Emery County is a first for the state and represents a range extension of about 300 miles from the nearest known station at Driggs, Idaho. The only other member of the genus, a grass-like relative of the sedges, to occur in Utah grows in the Uinta Mountains.

- contributed by Sherel Goodrich



FEDERAL AGENCY PERSONNEL MEET TO DISCUSS Astragalus montii  
FIELD TRIP SCHEDULED

Following the solicitation of comments upon the proposal that Astragalus montii be determined an Endangered Species (Federal Register, Jan 13, 1981), U.S. Fish and Wildlife and Forest Service personnel met with John Gill, USFW Section 7 Team Leader, to discuss existing data and opinions of actions to be taken for final rule-making. Official comment from the Region 4 Forest Service expressed the opinion that substantial threat to the species has not been demonstrated, and that "since the species is already on the Forest Service 'sensitive' list, it will receive protection even without endangered status."

Forest Service personnel recommended both further evaluation of the degree of threat from grazing and off-road vehicle use, and search of other potential sites for additional populations. Consequently, a field trip has been scheduled for July 29-31 to inspect the only known population and to inspect similar adjacent mountain tops. Interested persons may contact Duane Atwood (377-5780) for further details. Further action relative to final listing will be delayed until after the July field trip.



WELCOME NEW MEMBERS

Richard A. Vanwagenen, 2173 Preston St., SLC, UT 84106  
David C. Anderson, 1050 East Oakridge Circle, Sandy, Utah 84070  
Tonia Terrence, 143½ East 300 North, Logan, UT 84321  
Von Isaman, 24 East 400 South #1, Spanish Fork, UT 84660  
Joe Vinson, 3020 Killarney, El Paso, Texas 79925  
James G. Coyner, 1631 South 75 East, Bountiful, UT 84010  
Linda K. Limbach, Paraho Development Corp., Rifle, Colorado 81650  
Jennifer Harrington, 480 F St., SLC, UT 84103

DATES TO REMEMBER

- May 28 - SLC Chapter of the UNPS regular meeting.  
Topic: Bureau of Land Management Rangeland  
Improvement, New Regulations and Planning  
7:00 p.m., Room 112, Chemistry Bld., U. of U
- May 30 - State Arboretum of Utah Second Annual Plant Sale  
and Green Spree! Tree Walks and Talks - with Director  
W. Richard Hildreth. Arboretum Center, U. of U.
- June 17 - Garden Lecture Series  
Topic: Shrubs for Landscaping, Evergreen and  
Deciduous  
7:00 p.m., in front of Arboretum Center, U. of U.

# Spring Flowers

Many of the spring flowers in the southern part of the state have been flowering during the past month. Cymopterus, Phacelia, Cryptantha, Physaria, Castilleja, Camissonia, Echinocereus are some of the early common or showy things. Astragalus, the locoweeds and milkvetches, is one of the most notable and ubiquitous of the early spring genera. With over 100 species occurring in the state, there is almost no area but what has a series of characteristic species. For the most part, in any one area the species are easily distinguished from each other by characteristics of pod shape, flower size and color, leaf shape, and plant habitat.

The Wasatch foothills have many showy species flowering now. At the lower elevations the glacier lilies or "dogtooth violets" are past, but are still in full bloom near snowline. Dwarf catseye (Cryptantha humilis), larkspur (Delphinium nuttallianum), early paintbrush (Castilleja chromosa), wallflower (Erysimum asperum), mules ears (Wyethia amplexicaulis, and balsamroot Balsamorhiza spp.) are flamboyant common things.

Smaller or less showy are woodland star (Lithophragma parviflorum), rockcress (Arabis spp.), bastard toadflax (Comandra umbellata), scorpion weed (Phacelia linearis), and waterleaf (Hydrophyllum capitatum). The bright rose-purple flowers of sweetvetch (Hedysarum boreale) are just coming into bloom. Two colorful wild sweet peas are Lathyrus brachycalys and Lathyrus pauciflorus. On dry southwestern slopes the cheatgrass has already browned. Some of the early annuals such as Draba verna have completed their life cycle; the seeds are shed, the tiny stems sere and dead.



Peak flowering times vary within the state according to the elevation and climate. To be able to observe the greatest number of flowers, a general time schedule follows: Peak flowering times: Washington Co. - mid-April to first of May. Foothills and local valleys - May to June. Mid-elevation plateaus and canyons - June to July. High Uintas - late July through August.

## 🌸 SHARE YOUR SUCCESSES

If you have enjoyed attempting to cultivate native plants for garden and ornamental use, share your experiences with other UNPS members. What successes have you have? What techniques have you used? In what special horticultural ways (rock gardens, borders, ground covers, specimen plantings, unwatered spots, etc.) have you used our native species? What problems (germination, diseases, etc.) are you trying to solve?

Send notes or questions to Kaye Thorne or Elizabeth Neese, Utah Native Plant Society, MLBM 388, Brigham Young University, Provo UT 84602 for inclusion in the Newsletter.

## YOUR VOICE COUNTS

Local-level land management decisions by Federal agency personnel relative to land use (grazing, mining, etc.) are greatly influenced by the response of concerned individuals. Often potential land leasees such as mining companies and ranchers do not take seriously the jeopardy of rare species or have interests at odds with their protection. Therefore public response showing concern for their preservation is greatly needed.

If you know of any project impacting rare plants on federal lands - WRITE letters to area or district managers stating your concern and asking what is being done. Such input carries tremendous weight.

### Area Notes -

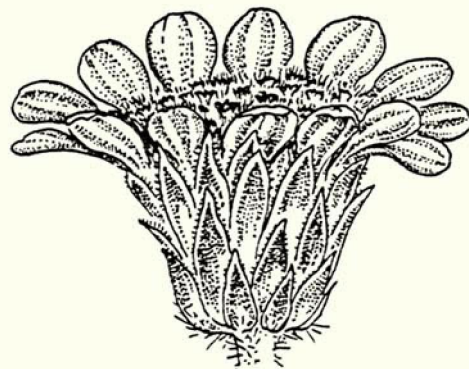


A new population of Townsendia aprica, a species reviewed (Federal Register, Dec. 15, 1980) as Category 1\* and recommended for endangered status, was recently located by Larry Greenwood, Richfield BLM, in Sevier County on the Arapien Shale Formation. This yellow-flowered little daisy blooms during March, April, and May and is of especial concern because of accelerated gypsum mining activities on its habitat. New Bureau of Land Management policies however, require that a plan of operation must be filed with the BLM before any mining action can be initiated on BLM lands. This policy should give sufficient lead time to allow on-site inspection of proposed mining areas before disturbance. Thus, recommendation can be made to avoid critical areas where small populations are found.

Increased pressure on habitats on Arapien Shale relative to accelerated gypsum mining also potentially impact Cymopterus coulteri and Mentzelia argillosa. Letter-writing support is needed for the federal personnel who are working to locate and protect the diversity of floristic heritage.

Darryl Trotter, Moab District BLM, reports that Astragalus iselyi (Category 1\*) was in full flower in April; he has located another small population of this narrow endemic.

\*Category 1 species are those plants for which sufficient information is on hand to support the biological appropriateness of their being listed as Threatened or Endangered Species.



Townsendia aprica



PHOTOGRAPHY COMMITTEE

Now is the time! Spring is here! Flowers are blooming! Folks are crawling around on their hands and knees photographing their favorite blooms! THE UTAH NATIVE PLANT SOCIETY PHOTOGRAPHY COMMITTEE IS ACCEPTING SLIDE DONATIONS, SUGGESTIONS AND VOLUNTEERS!!

The Photography Committee tasks offer greater potential for both service and pleasure than any other Committee. The purpose of this statewide Committee is to develop a photo-slide library of Utah plants to promote the purpose of the Society. Our goal is to create a complete and comprehensive file, comprising the many aspects of Utah plants, focusing on, but not limited to, native plant species. We need plant identification "mug shots", detail photos, environment photos, historic photos, etc. etc. etc.. According to Holmgren and Reveal, more than 5,000 species of vascular plants occur in the Intermountain Area, so we have quite an undertaking before us! NO PUBLIC COLLECTION SUCH AS THIS EXISTS IN UTAH. We welcome any help you can provide.

The University of Utah Marriott has offered us space for archival storage of our original set of slides. Dr. Everett L. Cooley and Della Dye of Special Collections-Manuscripts/Photographs/Archives have agreed to assist us in cataloging our photos into a usable, cross-referenced system. This permanent file will be based taxonomically by Family, Genus and Species and cross-referenced by location, blooming period, color, palatability and other pertinent headings. These originals will be totally accessible to ANYONE (library card or no) for study and research within the Special Collections Library area. Duplicate slides will be available for borrow or purchase through the Society.

Concerning the photos themselves, at this time we are collecting slides only. The file will be expanded in the future to include prints and negatives. We have two vital guidelines:

- 1) PLEASE DONATE ORIGINAL SLIDES. PLEASE NO DUPLICATED PHOTOGRAPHS. This ensures prime quality photos. One method of accomodating this "original" problem is to shoot two photos at the same time...one for you, one for UNPS.
- 2) In light of the limited volunteer staff, WE CANNOT ACCEPT U.F.O. (UNIDENTIFIED FLOWERING OBJECTS) SLIDES. This suggests regular "U.F.O. Night" Chapter Meetings...

a time to share mysteries and discoveries. MAKE SURE YOUR IDENTIFICATION IS CORRECT. Check it out in at least 3 source references or have a taxonomist take a look at it. We recommend identification at the site.

Your slides will be gratefully accepted and credited to you whenever used. Some other information you might consider:

- 1) Name of plant (this one is a must!): Family \_\_\_\_\_  
Genus \_\_\_\_\_ Species \_\_\_\_\_ Common Name \_\_\_\_\_
- 2) Name of Photographer: \_\_\_\_\_  
Address \_\_\_\_\_ Phone# \_\_\_\_\_
- 3) Date Photographed (needs only be approximate): \_\_\_\_\_
- 4) Location: \_\_\_\_\_
- 5) Associated Plants: \_\_\_\_\_
- 6) Geography: Soil Type \_\_\_\_\_ Slope \_\_\_\_\_  
Elevation \_\_\_\_\_ Other \_\_\_\_\_
- 7) Comments: Edible \_\_\_\_\_ Poisonous \_\_\_\_\_  
Endangered \_\_\_\_\_ Can be used for \_\_\_\_\_  
Other \_\_\_\_\_

Send slide donations to Photography Committee Chairman, Pam Poulson, 360 East Woodlake Cove, Salt Lake City, Utah 84107, telephone: 261-1344.

Whether your interests and talents are artistic, scientific, technical, organizational or purely recreational, UNPS PHOTOGRAPHY COMMITTEE NEEDS YOU! We need your slides, your time, your suggestions and ideas. Please contact your Chapter President, UNPS President, Barbara Halliday, or Photography Committee Chairman, Pam Poulson, to donate slides, or to volunteer your time and suggestions.

(contributed by our new Photography Committee Chairman, Pam Poulson 261-1344 (home)  
972-6120 (work))





Penstemon  
urchensis

# UTAH NATIVE PLANT SOCIETY

## WHAT'S DOING THIS SUMMER?

The Salt Lake Chapter of the Utah Native Plant Society is planning two outings for the summer months and we hope you will be able to join in.

On July 11, Saturday, at 9:30 a.m., there will be a PONDEROSA PINE POTTING PARTY at the Univ. of Utah Greenhouse, top floor of the South Biology Building (this is the building just north of the Chemistry Building where Chapter meetings are usually held).

The Chapter has been given a generous donation of pine seedlings which now need to be potted up. These will eventually be sold at a Chapter plant sale. Right now, they need someone to give them a good start--please come help!

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On August 1, Saturday, at 11:30 a.m., all those interested in a combination PHOTOGRAPHY/PLANT KEYING AND IDENTIFICATION/COLLECTING outing to Albion Basin, Little Cottonwood Canyon, should meet at the "Y" in the road at the mouth of the canyon. The upper road to Albion Basin is rough, but passable to passenger cars and transportation to the Basin will be coordinated at the "Y."

The wildflowers should be at their peak in Albion Basin at this time, and this will be a fine opportunity to cool off, enjoy a sack lunch and learn more about the beautiful flora of this area. Pam Poulson will be on hand to help with photography hints and Les Shields will assist those interested in developing their keying and collecting skills.

Bring along: your sack lunch, all the photography gear you want to experiment with (especially magnifying lenses), a press for collecting if you are so inclined, and a book on Utah flora with a key.

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## LOOKING AHEAD TO FALL.....

Chapter meetings have been scheduled as follows:

September 24, 7:30 p.m., Room 112, Chemistry Bldg., Univ. of Utah:

Thayne Johnson of the Bureau of Land Management, will give a slide presentation on "Range Land Management"

October 29, 7:30 p.m., Room 112, Chemistry Bldg., Univ. of Utah:

Jay Nielson of the University of Utah Museum of Natural History will speak on "The Preparation of Plants and Material for the Natural History Museum"



Penstemon  
urahensis

# UTAH NATIVE PLANT SOCIETY

NEWSLETTER  
October, 1981

OFFICERS

President	Barbara Halliday
Vice President (Acting)	Duane Atwood
Secretary	David Anderson
Treasurer	Glenn Halliday

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Sherel Goodrich	Stanley Welsh
Glenn Halliday	Al Winward
Barbara Halliday	

COMMITTEES

Newsletter.....	Elizabeth Neese/ Lester Shields
Photography.....	Pam Poulson
Rare Plants/Conservation.....	Stanley Welsh/ Irving McNulty
Membership.....	David Anderson
Publicity.....	Anthony Frates
Horticulture.....	Claire Gabriel/ Richard Hildreth

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Please send all correspondence to: Utah Native Plant Society  
3043 Brighton Place  
Salt Lake City, Utah 84121

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## GRAND VISIONS ARE FINE--BUT LET'S NOT GET CAUGHT DAYDREAMING

Many Utah Native Plant Society members have great visions of what we might accomplish: a statewide throng with scores of chapters, monthly meetings and a bulging membership . . . groups working on native plant-related legislation . . . demonstration gardens . . . a speakers' bureau . . . a tape and slide program about native plants . . . use of native plants in every Utah landscape . . . the Utah Native Plant Society becoming household words . . . ad infinitum. These and other goals are obtainable; innovative ideas to accomplish UNPS objectives are vital and always welcome. But, in order to get to point Z from point A, initial and intermediate steps must be taken now. To make the UNPS a viable, strong group capable of initiating, completing and/or monitoring certain projects, a steadily increasing base of members must be sought after and backed up by an informative, interesting newsletter. The newsletter is critical not only to keep members informed and enlightened but also to retain members since for many, the newsletter is the only tangible benefit. For these reasons, our most important short-term objectives must be to: (1) increase membership at a planned rate; and (2) increase the variety of the contents of the newsletter and set-up and maintain a regular system of circulation.

### MEMBERSHIP DRIVE

For the remaining months of 1981, our goal is to add 50 new members. This is less than 20 new members per month and with the October plant and seed sale and gift memberships now available for Christmas, we should be able to add 50 new members in Salt Lake County alone.

We challenge every member to encourage at least one person to join the Utah Native Plant Society. A membership form is enclosed with this newsletter; more forms are available, but not necessary. Just provide the new member's name, address and telephone number and indicate the class of membership requested. Also, why not give a GIFT MEMBERSHIP to a friend or relative for Christmas this year? Not only will you be giving someone a gift lasting a year and perhaps inspiring a lifelong interest, you will be helping UNPS meet its immediate goals.

### WHY BECOME A MEMBER?

- To receive the monthly newsletter listing important statewide events affecting native plants, activities, non-technical and technical information about plants, questions and answers and much more (just the newsletter is worth the membership cost).
- To obtain discounts on plant publications.
- To have the opportunity to participate in UNPS projects, submit articles to the newsletter, etc.
- Most important of all, to express support and concern for native plants, with the belief that native plants must be protected and therefore appreciated because of their natural ability to survive in our environment, and that wider use of native plants in Utah landscapes will greatly benefit present and future Utahns.



CARE AND FEEDING OF THE NEWSLETTER

Are you aware of a meeting or project relating to native plants? Is a certain plant flowering profusely in your area? Do you know of a special locale where the wildflowers put on a special display--and would you like to share it with others who will appreciate their beauty? Do you expect the bulldozers to scrape away another habitat for native plants and would you like to alert others to the possibility of removing and replanting the natives before the bulldozers arrive? Would you like help in identifying a mysterious plant? Do you have questions--suggestions? Send your scribbled or typed notes to Utah Native Plant Society, 3043 Brighton Place, Salt Lake City, UT 84121. We especially want to hear from members outside of Salt Lake County. We want to know what is going on in your area, so write!

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HAPPY NATIVES IN WESTERN UTAH

The natives are celebrating in western Utah, or at least the plants are. UNPS applauds the recommendation of President Reagan not to construct the racetrack version of the MX system in Utah and Nevada and wishes to thank all of those groups and individuals who worked so long and so hard against the destructive basing mode. While other issues may have been equally as important in the decision not to construct the racetrack mode, the plants are happy nevertheless.

--Tony Frates

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MATHESON PHILOSOPHY ON ENDANGERED AND THREATENED PLANTS

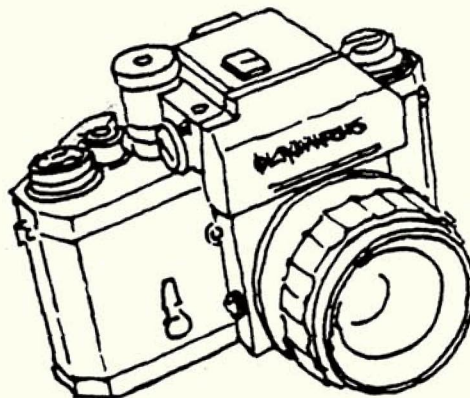
In a recent letter to the regional director of the U.S. Fish and Wildlife Service in Denver, Gov. Matheson made the following remarks when considering yellow-white cat's eye (Cryptantha ochroleuca Higgins) for inclusion on the Federal list of endangered and threatened species:

"We have several plant species in Utah that are restricted to a particular soil type. In many cases, these endemic species are really sub-species. We do not see the need to list plants as threatened or endangered simply because they have a few minor morphological differences, and in fact may be sub-species. Should this be the case with the yellow-white cat's eye, we could not support its classification as threatened or endangered."

Perhaps the Governor is right. On the other hand, statements like these don't usually inspire confidence when made by government officials. Anyone interested in working on a project regarding "sub-species" or in obtaining a copy of the governor's letter dated August 24, 1981, please contact Tony Frates, P.O. Box 6257, SLC UT 84106.

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In making a photograph of a wildflower, we are capturing a particular aspect of a plant and isolating it from its environment. When the photo is viewed in totally different surroundings, it must maintain its integrity and intent. The photo must be a self-contained whole, able to stand alone. How do we achieve this desired result?



Through the coming months, this column will discuss basic approaches to the elusive, perfect photograph. This is number one in a series.

**WHAT KIND OF CAMERA IS NEEDED?** Satisfactory photos can be taken with the common 110 cameras (such as the Instamatic), but these cameras are very limited in their use. They offer no interchangeable lenses, no through-the-lens previewing, no adjustable focus. The biggest drawback with 110's is no focus at all at distances closer than four feet.

The recommended camera for use in wildflower photography is the 35mm camera. There are hundreds of 35mm cameras on the market, many so similar in price and features that making a choice among them is sometimes frustrating. To clear the confusion a bit, divide 35mm cameras into two categories: 1) Rangefinders and 2) Single Lens Reflex (SLR) cameras.

#### Rangefinders -

With these cameras previewing is "finding" your "range" through a window that looks directly through the camera, not through the permanent lens. Focusing is accomplished by rotation of the focusing ring to lines marked on the lens barrel with measurements usually indicated in both feet and meters. Shutter speeds and apertures are also adjustable.

#### Advantages:

- Convenient composing
- Fast focusing
- Very portable

#### Disadvantages:

- No through-the-lens previewing
- No assurance of crisp focus
- No interchanging of lenses
- Parallax--because of the rangefinder's position, the eye does not quite see what the lens sees. And the closer to the subject, the less accurate the rangefinder.

Single Lens Reflex Cameras (SLR's) -

These cameras represent the pinnacle of refinement in 35mm camera design. Both the viewing and shooting functions are performed through the 50mm "normal" lens, which is interchangeable and add-to-able with a wide variety of lenses, filters and other accessories.

Available features

- Through-the-lens built-in light meter
- Accessory shoe for flash attachment
- Motor drive or film winder
- Accessory lenses and filters
- Remote control
- Automatic features--preferably with manual override
- Etc, etc., etc.

Advantages:

- Wide focusing range
- Lenses and accessories
- Through-the-lens previewing and focusing
- Versatile alone and more so with accessories

Disadvantages:

- Bulky and heavy
- Noisy
- More complicated to use
- Difficult to focus in dim light

Considering all of the above, the rangefinders are excellent for fast hand-held shooting. However, they are at a distinct disadvantage for close-up photography, work requiring accuracy of framing, control of depth of field--any work where parallax is a problem. That narrows the choice down to SLR's. There is a staggering number of them on the market ranging in price from moderate to very expensive. The final decision of which SLR rests with preference of features, ruggedness, ease of use and size of budget. Shop and compare, then watch for sales on the one you want!

Any differing opinion, additional comments or questions? Please send them to: Pam Poulson, Photography Chairman, 360 East Woodlake Cove, Salt Lake City, Utah 84107.

NEXT TIME: "The Second-Most Important Piece of Equipment"

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PHOTOGRAPHY COMMITTEE REPORT

Although we need more contributions of original slides than of time, our slide library is growing steadily. We've been looking for a good photo of the Utah Penstemon (Penstemon utahensis)--our Society's chosen symbol. Does anyone out there have one (or two, or three) they would like to donate to our archival file? Please send to Pam Poulson, at the above address.

## MY FAVORITE NATIVES

Each of us, as we hike or go on outings throughout Utah, encounters our own favorites among the wildflowers, trees and shrubs. In this regular column of the UNPS newsletter, future articles will be devoted to my personal choices from the flora. Brief descriptions, notes on possible garden and landscape use, culture, and propagation will highlight each plant.



MOUNTAIN LOVER

Members are encouraged to submit their favorites for future columns. Of primary importance to readers will be your own experiences with the plant in your garden. Share your successes as well as those which do not do so well. Perhaps other readers can offer suggestions to ensure success.

Surprising to many are the several broadleaved evergreen shrubs native to Utah. Deciduous shrubs and trees abound and offer a stark contrast to the occasional clump of fully foliated greenery seen in the winter months. Mountain Lover is one of these evergreen shrubs.

Mountain Lover (Pachistima myrsinites) is our only representative in the Bittersweet family (celastraceae). It is noted chiefly for its foliage characteristics since the small flowers with four dark purplish-red petals are practically inconspicuous. Similarly, the infrequent fruit is a dark purple-black capsule under 1 cm. long. The leaves are reminiscent of common exotic garden plants like Boxwood (Buxus microphylla), Japanese Holly (Ilex crenata), and the related Wintercreeper Euonymus (Euonymus fortunei 'Kew') and its use in the garden would be similar: low mounding shrubs, groundcover, low hedge, wall, rock garden, border facing, or foundation planting.

It grows in the mid-montane to sub-alpine regions chiefly under oak, aspen, maple and conifers at higher elevations or in clearings. For garden use we would expect it to do well in shady to partially shaded sites or even in full sun with occasional summer irrigation. It spreads somewhat by root sucker growth and rooting of prostrate stems forming dense thickets up to 24-28" high by a 3-6 feet spread.

With seed mostly unavailable (about five cents per seed commercially) propagation is possible by division of root suckers or rooted prostrate stems. Establishment in the garden is slow with little growth the first year or two. Young stem tip cuttings can be induced to root in the spring following the first flush of growth. A rooting hormone, bottom heat, intermittent mist or high humidity atmosphere will aid in the process. Some Utah nurseries may also have established plants for sale.

.....continued

MY FAVORITE NATIVES  
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The dark glossy green dense leathery leaves are opposite elliptic in outline with fine marginal teeth. Stems are squarish in cross section and warty in texture.

This species of Mountain Lover grows throughout the western U.S. from British Columbia to California, extending south to northern Mexico. It can be seen along all of the streams and creeks entering Salt Lake City from the central Wasatch Front.

The genus Pachistima (also spelled Pachystima and Paxistima) contains two species, the other being a native of the eastern U.S. (Pachistima Canbyi).

--W. Richard Hildreth  
Chairman, Horticulture Committee

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HORTICULTURE COMMITTEE REPORT

During the summer, several Salt Lake Chapter members--Les Shields, Andy Shaw, and Jennifer Harrington worked with Dick Hildreth on a Ponderosa Pine propagation project and it has been a success! The little seedlings are growing vigorously and now need to find new "foster parents" who will give them space and a bit of tender loving care for the next growing season, after which the Society will hope to sell the pines at the annual plant sale. If you have a few square feet of unused garden area, won't you please call the Utah State Arboretum (581-5322) and make arrangements to pick up the "adoptees."

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BARGAINS! BARGAINS! BARGAINS!

The list of items available to you through the Utah Native Plant Society keeps on growing. Here are the bargains presently available--some are an even better bargain if you are a current member of UNPS, so why not include your membership check with your order?

All the items below are available for purchase at: Salt Lake Chapter meetings; at the Utah State Arboretum, U of U campus; or can be ordered by mail through UNPS, 3043 Brighton Place, Salt Lake City, UT 84121. If ordering by mail, please include postage as indicated.

You have the opportunity to purchase these outstanding books dealing with various aspects of native plants, at considerably reduced prices. (Please include \$1.00 postage per book for mail order.)

<u>TITLE/AUTHOR</u>	<u>Member</u>	<u>Non-Member</u>	<u>List Price</u>
<u>Flora of Alaska and Adjacent</u> <u>Parts of Canada,</u> by Stanley L. Welsh. 724 pp.	\$ 5.00	\$ 8.00	\$ 29.95
<u>Utah Plants, (Hardback)</u> by Stanley L. Welsh & Glen Moore. 474 pp.	4.00	6.00	12.95
<u>Utah Plants, (Paperback)</u> by Stanley L. Welsh & Glen Moore. 474 pp.	3.00	5.00	9.95
<u>Mosses of Utah and the</u> <u>West, by Seville Flowers.</u> 567 pp. (beautifully illustrated)	5.00	8.00	19.95

Also available is a most attractive and informative coloring book, Utah's Colorful Natives, produced by the Utah Native Plant Society and available for \$1.00 at meetings or by mail \$1.50, including postage.

Christmas is coming, and what could be a better gift than a beautiful wildflower calendar? This one, Wild Country Flowers, 1982, has 13 full-color, larger-than-life (11" X 13") photos of Intermountain wild flowers and is among the handsomest calendars now on display at local bookstores. However, thanks to the generosity of Pam and Marv Poulson who produced the calendar, it is available to UNPS members at \$5.00. (Include \$.75 additional for mail order).

How about trying your hand at growing some Utah natives from seed? The following are currently available at 50 cents per packet and each packet tells just where the seed was collected. (Please add \$.50 to the total order if mail order):

Abronia fragrans (Fragrant Sand Verbena)	Penstemon (purple color)
Amelanchier utahensis (Utah Serviceberry)	Penstemon eatonii (Firecracker)
Astragalus asclepiadoides (Milkvetch)	Phacelia argilaceae (rare plant, new population)
Dodecatheon pulchellum (Shooting Star)	Ranunculus (yellow))
Enceliopsis nudicaulis (Sunray)	Sphaeralcea parvifolia (Globe Mallow)
Erigeron pumilus (Fleabane)	
Gaillardia	

WHAT'S GOING ON?

SALT LAKE AREA--UNPS, Salt Lake Chapter Meetings--NON-MEMBERS WELCOME

October 22, 1981 7:30 p.m., Room 112, Chemistry Bldg., Univ. of Utah

Plant Faire, native plant of the month, plus Jay Nielson from the U of U Natural History Museum will talk about preserving plants and flowers.

November 19, 1981 7:30 p.m., Room 102, Chemistry Bldg., Univ. of Utah

Native Plant Photography Workshop--bring 5 slides or photos, for identification of plants or critique of photograpy.

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SAN JUAN/GRAND COUNTIES

- November 10 - Monticello
- November 11 - Moab
- November 12 - Blanding

Public meetings will be held at the above dates and places in connection with the recommendation that Gibson Dome be intensively studied as a possible site for development of a high-level nuclear waste repository. Where's Gibson Dome? Near the entrance to the Needles Section of Canyonlands along Indian Creek. Fifteen (15) plant species are listed as being threatened, endangered or protected in the study area. We need to be on top of any proposed development. If you attend, send a brief summary and/or your comments on the meeting to the UNPS.

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WAYNE/GARFIELD COUNTIES

Comments on wilderness alternatives for the Henry Mountain Resource Area must be submitted by October 30, 1981. Those interested in commenting on this project which involves 10 wilderness study areas should write to the Public Information Officer, BLM, 150 E. 900 No., Richfield, Utah 84701.

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.....Is something "up" in your county directly or indirectly affecting native plants? If so, drop a postcard to Tony Frates, P.O. Box 6257, SLC, UT 84106. Let us know 45 days in advance (if possible) of important upcoming dates. We need your input!

## WHAT'S BEEN GOING ON?

Since the last issue of the UNPS Newsletter a busy summer has come and gone for the UNPS. In June, the Society participated in the Utah Arts Festival at the Salt Palace by providing an informational booth in the Children's Art Section and printing and distributing our first "in house" publication, Utah's Colorful Natives, a beautiful and informative coloring book featuring the striking illustrations of Kay Thorne, Curator of the Herbarium, Monte L. Bean Life Science Museum, Brigham Young University.

The Salt Lake City Chapter held a Ponderosa Pine Potting Party in July (see more about the success of this project elsewhere in this newsletter) and, in August, the SLC Chapter in cooperation with the Photography Committee hosted an outing in Albion Basin, Little Cottonwood Canyon. This field trip concentrated on the techniques of wildflower photography and plant identification.

At their September meeting the SLC Chapter elected new officers: C.W. Reese, President, Andy Shaw, Vice President and Jennifer Harrington, Secretary/Treasurer.

New President Reese has an exciting slate of chapter meetings, educational sessions and field trips to expand the membership's knowledge of native plants. Most recently, on October 10, the SLC Chapter with the cooperation of the Horticulture Committee held the first Annual Native Plant and Seed Sale at the Sunset Nursery in Sandy. In spite of a rainy day, the sale netted the Chapter almost \$300. and plans are already underway for a bigger and better (and even more profitable?) sale next Fall. Chapter members who helped make the plant sale so successful are: Glenn and Barbara Halliday, Jennifer Harrington, Dick Hildreth, Dick Page, Pam Poulson, C.W. and Inga Reese, Mrs. Shaw, Les Shields and John Wheeler. The Chapter's thanks also goes to the local nurseries who donated plant material and in some cases even provided delivery of the plants: Bland Nursery, Millcreek Gardens, Native Plants, Inc., Sunset Nursery, Wasatch Shadows.

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During the summer, Dixie E. Rose, noted Utah wildflower expert and author, presented the Society with a copy of her latest book, Utah's Intermountain Wildflowers. We are grateful for this lovely gift and Dixie Rose's book will be the nucleus of a native plant library to be available for members along with our photographic slide library.

\*\*\*\*\*





Penstemon  
urahensis

# Utah Native Plant Society

The Utah Native Plant Society is a recently formed organization of persons who share an interest in the native flora of our state. Chapters are being established in Salt Lake City, Logan and Provo with future chapters expected throughout the state. Membership includes a range of people from "just interested" through amateurs of varying backgrounds to top professionals in the field. A monthly newsletter is published to bring notes of all activities and news of special interest to members.

Activities are varied, informal, numerous, enjoyable and include:

- **Field trips** - local and extended, guided by knowledgeable members
- **Chapter meetings** - with programs on a wide variety of subjects: endangered plants, plant identification, landscaping with native plants, seed gathering, ....
- **Photography** - forming a library of slides and prints of Utah plants and flowers.
- **Committees** - covering Conservation, Horticulture, Plant Sales, and other areas of interest to the membership

The Utah Native Plant Society extends an invitation to you to join, to participate in our activities, to learn, and to enjoy the beauty of our native plants (and the spectacular scenery where they are found). The Society's work is voluntary and completely supported by membership dues and gifts.

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**MEMBERSHIP IN THE UTAH NATIVE PLANT SOCIETY**

Individual Membership:

Name \_\_\_\_\_

Street \_\_\_\_\_ City and State \_\_\_\_\_ Zip \_\_\_\_\_

Please send gift membership card to:

Name \_\_\_\_\_

Street \_\_\_\_\_ City and State \_\_\_\_\_ Zip \_\_\_\_\_

From \_\_\_\_\_

Annual Membership:

Check Membership Category:

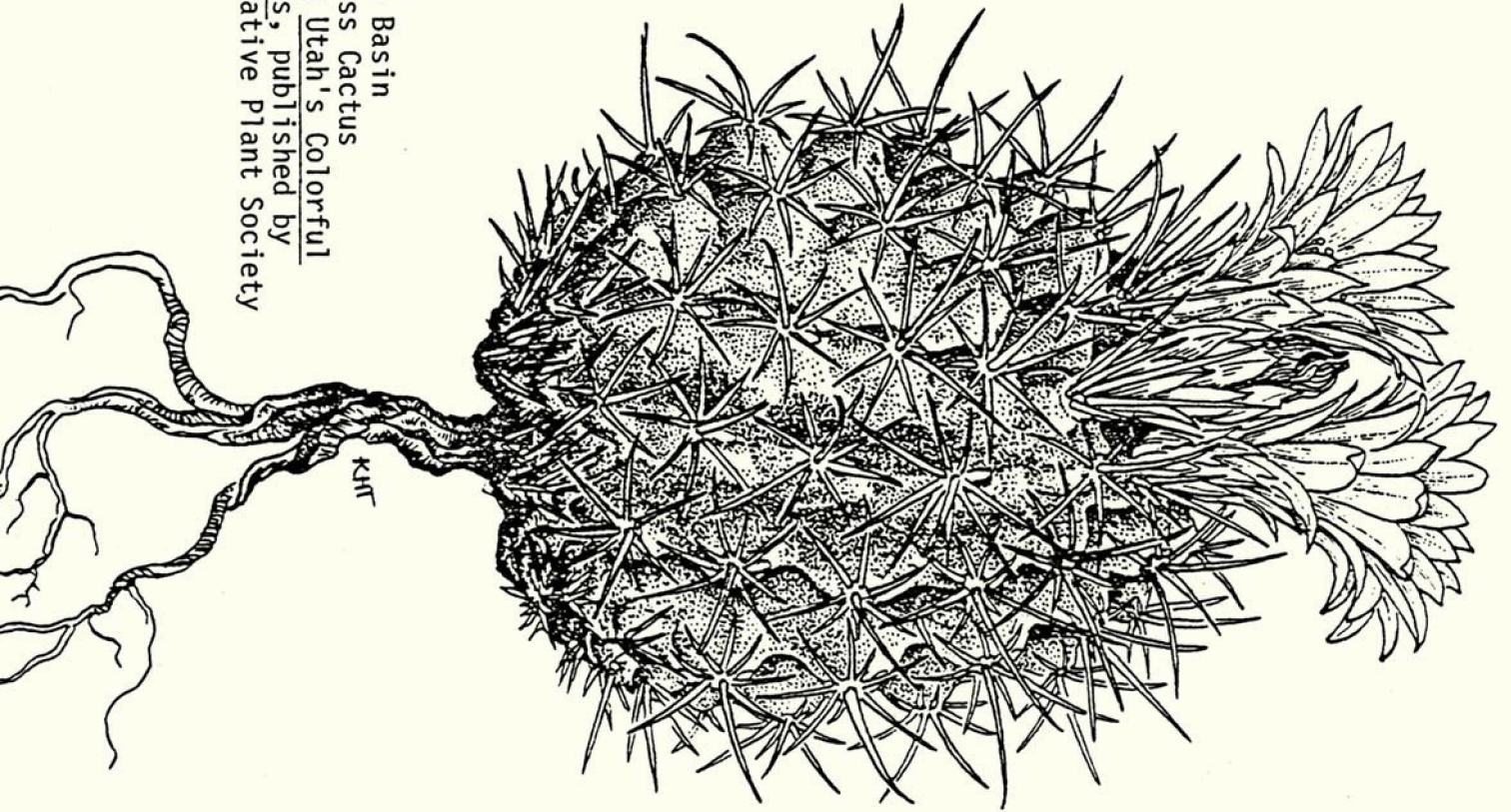
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| Individual \$8.00 <input type="checkbox"/>  | Student \$4.00 <input type="checkbox"/> | Family \$12.00 <input type="checkbox"/>        |
| Supporting \$25.00 <input type="checkbox"/> | Life \$250.00 <input type="checkbox"/>  | Senior Citizen \$4.00 <input type="checkbox"/> |



Please enclose check made payable to the Utah Native Plant Society and send to:

Glenn Halliday, Treasurer, Utah Native Plant Society,  
3043 Brighton Place, Salt Lake City, UT 84121

Uintah Basin  
Hookless Cactus  
--from Utah's Colorful  
Natives, published by  
Utah Native Plant Society



UTAH NATIVE PLANT SOCIETY  
3043 Brighton Place  
Salt Lake City, Utah 84121

Surrey 1890s  
USA 18c





Penstemon  
urahensis

# UTAH NATIVE PLANT SOCIETY

NEWSLETTER  
November, 1981

## OFFICERS

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President	Barbara Halliday
Vice President (Acting)	Duane Atwood
Secretary	David Anderson
Treasurer	Glenn Halliday

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Please send all correspondence to: Utah Native Plant Society  
3043 Brighton Place  
Salt Lake City, Utah 84121

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## ENERGY DEVELOPMENT AND RARE PLANTS: PLANNING FOR THE FUTURE

### 1981 Rocky Mountain Regional Rare Plant Conference

A rare plant conference sponsored by rare plant societies of Utah, Colorado, Wyoming, and New Mexico and by the Denver Botanic Garden and federal agencies met November 5 and 6 in Denver. It was attended by nearly 200 people from throughout the country. The Utah Native Plant Society was represented at the meeting by Stanley L. Welsh, Duane Atwood, Dick Hildreth, and Elizabeth Neese.

Current federal, state, and industry regulations and policies related to rare plants and energy development were presented by personnel from the agencies. Problems related to data collection, storage, and dissemination and effective communication between agencies were studied. Presentations were given by Dr. Welsh and Dr. Atwood.

The proceedings emphasized the need for improvement of communication between environmentalist and industrialist, and between biologist and engineer.

Lack of funding to implement rare species research and protection continues to be of primary concern. Under the present unfavorable political climate, re-authorization and implementation of the Endangered Species Act may depend upon the degree to which individuals, laymen and professional alike, make their voices heard. Evidence shows that timely letters to appropriate federal and private agencies stating individual concerns, are a powerful and effective tool in influencing decisions.

The following paper was presented by Dr. Stanley L. Welsh, member, Utah Native Plant Society Board of Directors, at the 1981 Rocky Mountain Regional Rare Plant Conference in Denver, Nov. 5-6, 1981:

UTAH RARE PLANTS--1976 to 1982

Stipulations of the Endangered Species Act of 1973 (as amended 1978) provided impetus, along with that generated by the botanical public in the west, which have brought western American plant taxonomy screaming into the 20th century, almost at its termination. Dedication of individual taxonomists, always burdened with other chores that allowed them to live, has not been sufficient to bring botanical knowledge in western states to a level enjoyed by those in the east. Money and time to travel in the field became available to taxonomists from contracts to do rare plant inventories. The first of these in Utah were funded by the Bureau of Land Management, and involved general surveys of all vascular plant species in the regions studied. Other studies were under the direction of the U.S. Forest Service, U.S. Geological Survey, and U.S. Fish and Wildlife Service. Numerous private industries supported investigations on specific project areas. Later investigations were confined to selected rare plants. These later studies did not yield the body of information available from the general surveys. They did elucidate information about distribution of rare plant species being investigated, but did not allow accumulation of information or specimens of other potentially rare species.

That the impact on collections has been great is illustrated by the holdings of Brigham Young University. Between 1970 and 1976 a total of 44,000 specimens were accessioned into the herbarium, or an average of about 7,500 per year. Between 1976 and 1981 some 90,000 specimens were accessioned, or about 15,000 per year. The difference between the two average figures can be attributed to the impact of the funded rare plant surveys.

During the period from 1976 to 1981 there were 51 new taxa of vascular plants named from Utah, or from adjacent regions but which share distribution with Utah.\*

Of the total number of new taxa named during the period, almost half (23) of them are related to the rare plant surveys conducted as a result of the Endangered Species Act. And, several others await description as time and money becomes available. The remainder were generated under stimulus of the Utah Flora Project, Intermountain Flora Project, and professional monographic studies. A great many of the species initially reviewed or proposed for status were found to be common to abundant over rather large expanses, and they were removed from further contemporary consideration for status. Range extensions of rare plants are legion. Astragalus naturitensis Payson was collected in San Juan County, by Duane Atwood, while searching for rare plants. Astragalus filipes Torr. ex Gray was found in Box Elder County by Kezia Snyder. Astragalus chamaemeniscus Barneby, and A. uncialis Barneby were collected in Utah by Frank Smith. All of these species of Astragalus were located in Utah following the publication of the Utah species of legumes by Welsh (1978). The specimens taken by Frank Smith were collected during investigations involving the ill-fated MX program.

• Dr. Welsh presented a list including those plants which were named during the period. A copy of this list can be obtained from his office at Brigham Young University:

Stanley L. Welsh, Herbarium, Room 375 MLBM, Brigham Young University, Provo, Utah 84602. (801)378-2289--editor.

.....continued

The MX studies yielded specimens of rare species in southwestern Utah and southern Nevada, especially in the southeastern portion. New populations of many of the species under consideration for status were located during those studies. Some of the taxa, e.g., Frasera gypsicola (Barneby) D.M. Post, were demonstrated to be very narrowly restricted, while others were more abundant than previously thought. Problems with the MX related inventories are similar to those with other agency funded studies. The areas to be surveyed were vast, and the time and money available was limited. An ideal survey would involve smaller units, and cover a time period of at least three consecutive years. This would allow one to observe the region being investigated over a sequence of different weather cycles. Spring, summer, and autumn investigations are necessary to allow proper investigation. Where plant community types are extensive, the discontinuities should be sought. Too much time can be spent in searching complacent vegetative types. All studies should provide voucher materials of rare plant species, where such collection will not further endanger the population. Vouchers should be deposited at recognized herbaria which are readily accessible to the botanical public. Field identifications of supposedly rare plants can then be compared to voucher material. Since little or no material of some of the rare plants is in existence, then the body of information is supplemented by the voucher material. We cannot hope to understand rare plant species, their distribution, or their biology if we cannot recognize the taxa in the first place.

There are still huge areas of Utah which have not been surveyed even at the lower level of a preliminary rare plant survey. We still have much to do.

....STANLEY L. WELSH, Ph.D.

--Selected references for Dr. Welsh's address can be obtained from his office. (Editor)

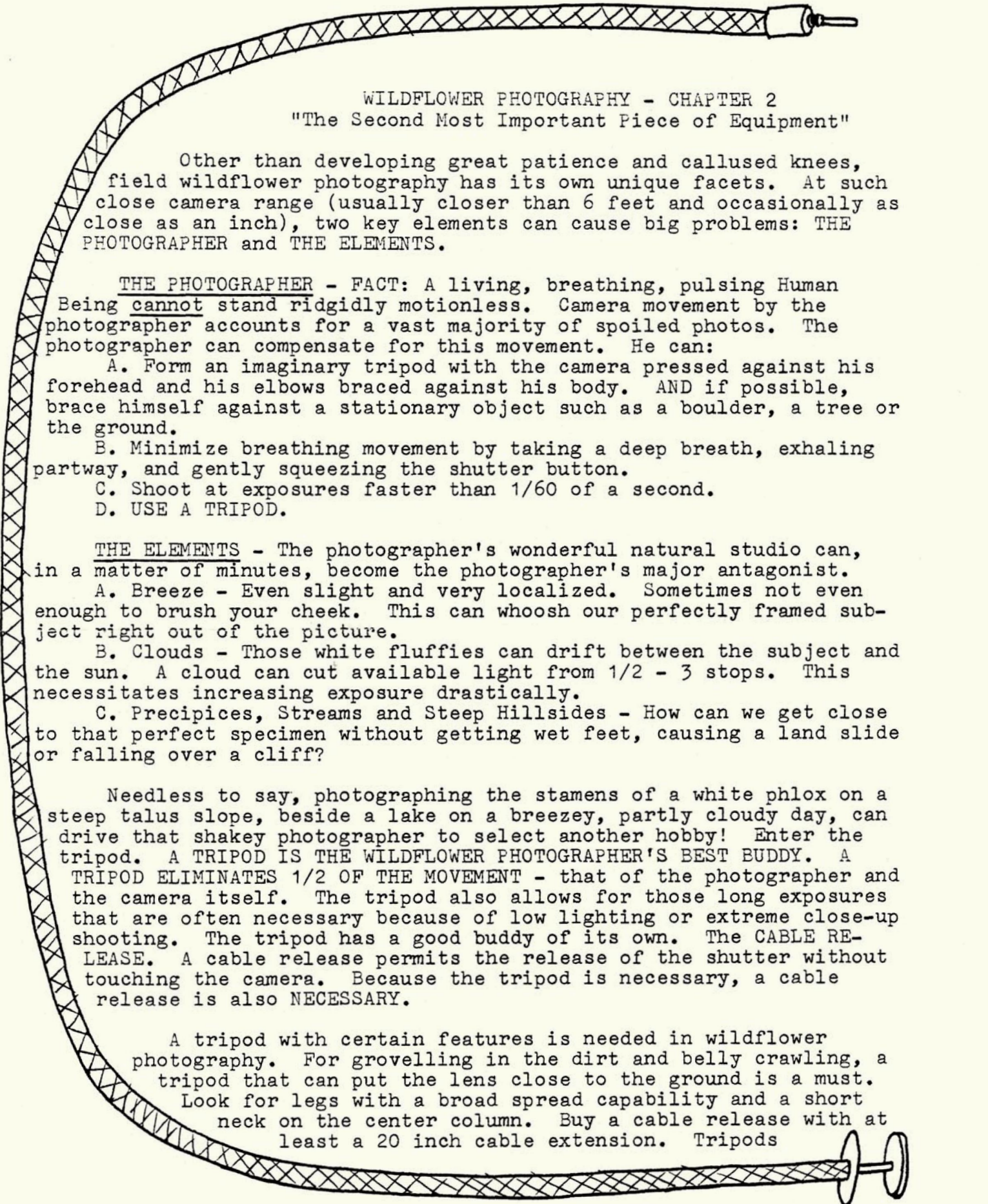
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The annual Utah Rare/Threatened/Endangered Plant Meeting, sponsored by the Utah Native Plant Society, will be held on December 4 at Brigham Young University, Monte L. Bean Museum Building. At this meeting, to be attended by botanists, biologists, environmental consultants and federal agency personnel, recommendations will be drawn up regarding the status of each of Utah's rare species.

The agenda for this meeting is:

10:00 a.m.	INTRODUCTIONS AND REVIEW OF PROGRAM STATUS
10:30	RE-EVALUATE "NOTICE OF REVIEW LIST" AND THE UTAH NATIVE PLANT SOCIETY RARE PLANT LIST
11:30	LUNCH
1:00 p.m.	COMPLETE REVIEW OF T/E LIST AND DEVELOP RECOMMENDATIONS FOR UPDATING THE NOTICE OF REVIEW LIST
3:00	SUMMARIZE AND CLOSE

Note: Please bring an extra copy of data gathered during the 1981 growing season. If you have extra voucher specimens or specimens you are having trouble identifying, bring them with you. We are expecting a good group so plan on attending--the meeting will not be complete without you!



WILDFLOWER PHOTOGRAPHY - CHAPTER 2  
"The Second Most Important Piece of Equipment"

Other than developing great patience and callused knees, field wildflower photography has its own unique facets. At such close camera range (usually closer than 6 feet and occasionally as close as an inch), two key elements can cause big problems: THE PHOTOGRAPHER and THE ELEMENTS.

THE PHOTOGRAPHER - FACT: A living, breathing, pulsing Human Being cannot stand rigidly motionless. Camera movement by the photographer accounts for a vast majority of spoiled photos. The photographer can compensate for this movement. He can:

A. Form an imaginary tripod with the camera pressed against his forehead and his elbows braced against his body. AND if possible, brace himself against a stationary object such as a boulder, a tree or the ground.

B. Minimize breathing movement by taking a deep breath, exhaling partway, and gently squeezing the shutter button.

C. Shoot at exposures faster than 1/60 of a second.

D. USE A TRIPOD.

THE ELEMENTS - The photographer's wonderful natural studio can, in a matter of minutes, become the photographer's major antagonist.

A. Breeze - Even slight and very localized. Sometimes not even enough to brush your cheek. This can whoosh our perfectly framed subject right out of the picture.

B. Clouds - Those white fluffies can drift between the subject and the sun. A cloud can cut available light from 1/2 - 3 stops. This necessitates increasing exposure drastically.

C. Precipices, Streams and Steep Hillsides - How can we get close to that perfect specimen without getting wet feet, causing a land slide or falling over a cliff?

Needless to say, photographing the stamens of a white phlox on a steep talus slope, beside a lake on a breezy, partly cloudy day, can drive that shakey photographer to select another hobby! Enter the tripod. A TRIPOD IS THE WILDFLOWER PHOTOGRAPHER'S BEST BUDDY. A TRIPOD ELIMINATES 1/2 OF THE MOVEMENT - that of the photographer and the camera itself. The tripod also allows for those long exposures that are often necessary because of low lighting or extreme close-up shooting. The tripod has a good buddy of its own. The CABLE RELEASE. A cable release permits the release of the shutter without touching the camera. Because the tripod is necessary, a cable release is also NECESSARY.

A tripod with certain features is needed in wildflower photography. For grovelling in the dirt and belly crawling, a tripod that can put the lens close to the ground is a must.

Look for legs with a broad spread capability and a short neck on the center column. Buy a cable release with at least a 20 inch cable extension. Tripods

WILDFLOWER PHOTOGRAPHY - CHAPTER 2

range in price from \$20 up. Cable releases start at about \$5.

A camera on a tripod will be guaranteed steady if that living, breathing, pulsing photographer keeps his hands off the camera during exposure. (Not guaranteed in cases of typhoon or earthquakes.) With the camera and cable release rigidly mounted on a tripod, the photographer need only concern himself with movement of the subject!

NEXT TIME: "Getting the subject to cooperate, and coping with the elements."

Any differing opinion, additional comments or questions? Please send them to: Pam Poulson, Photography Chairman, 360 East Woodlake Cove, Salt Lake City, Utah 84107.

\* \* \* \* \*

PHOTOGRAPHY COMMITTEE REPORT

We would like to thank Walt and Lora Loope of Moab for their contribution of the beautiful photo of Penstemon utahensis for our slide library. Work is continuing on cataloging and filing UNPS photos.



Because of many queries into donation of duplicate slides, we have changed our policy. We will accept them if there is no noticeable color shift from the original slide. Thanks for all of your contributions and suggestions. Keep up the good work!

We're looking for good exposures of Argemone munita (Prickley Poppy). This is a bright white light meter trickier with quivering petals that is hard to get a good picture of. Anybody out there have one they would like to donate to UNPS? Please send to Pam Poulson at the above address.

# # # # #

## LANDSCAPING--NATURALLY

The Horticulture Committee is always ready and willing to provide aid and advice to those wanting to incorporate our native plants into their own landscape. If you have a particular plant or problem please call or write the Committee Chairman, Dick Hildreth at the State Arboretum, University of Utah, Salt Lake City, UT 84112 (801)581-5322).

As a beginning, you might wish to consult some of the publications listed below, which were furnished by David Anderson and Michael Alder, UNPS State Board members:

- Deardorff, D.C. and G. Haggard. 1981. Going native with wildflowers and grasses. *New Mexico Magazine*. 59(4):48-54.
- Intermountain Forest and Range Exp. Station. 1975. Some important native shrubs of the west. U.S. Dept. of Agriculture, Forest Service, Intermtn. Forest and Range Ex. Station, Ogden, Utah. 16 pp.
- Johnson, C.M. 1970. Common native trees of Utah. Agricultural Experiment Station Cooperative Extension Service, College of Natural Resources, Utah State University, Logan, Utah. Special Report 22. 109 pp.
- Kelly, G.W. 1958. *Rocky Mountain Horticulture*. Pruett Publishing Co., Boulder, Colorado. 298 pp.
- Kelly, G.W. 1976a. *Trees for the Rocky Mountains*. Rocky Mountain Horticultural Publishing Co. Cortez, Colorado. 119 pp.
- Kelly, G.W. 1976b. *A Way to Beauty: Planting and Landscaping in the Rocky Mountains*. Pruett Publishing Co., Boulder, Colorado. 95 pp.
- Kelly, G.W. 1979. *Shrubs for the Rocky Mountains*. Rocky Mountain Horticultural Publishing Co. Cortez, Colorado. 171 pp.
- Lamb, S.H. 1977. *Woody Plants of the Southwest*. The Sunstone Press, Santa Fe, New Mexico. 177 pp.
- Native Plant Society of New Mexico. 1977. *Native plants for landscaping in northern New Mexico*. 22 pp.
- Native Plant Society of New Mexico. 1978. *Native plants for landscaping in southern New Mexico*. 32 pp.
- Sacamano, C.M. and W.D. Jones. 1976. *Native trees and shrubs for landscaping use in the desert southwest*. College of Agriculture, University of Arizona, Tucson, Arizona. 40 pp.
- Sutton, R. and C.W. Johnson. *Landscape plants from Utah's mountains*. Extension Service, Utah State University. EC-368. 135 pp.
- Welsh, S.L. and B. Ratcliffe. 1975. *Flowers of the Canyon Country*. Brigham Young University Press, Provo, Utah. 51 pp.



NATURALLY NATIVE -- the Curlleaf Mountain Mahogany

Woody shrubs or small trees in the rose family are well represented in the flora of Utah. Many have ornamental landscape qualities of showy flowers, colorful and often edible fruit, bright autumn foliage, and interesting winter branching habit. Familiar groups include: Service berry (Amelanchier), Chokecherry, Plum, and Apricot (Prunus), Hawthorn (Crataegus), Mountain Ash (Sorbus), Ninebark (Physocarpus), Cinquefoil (Potentilla), Fernbush (Chamaebatiaria), Spiraea (Spiraea), Bitterbrush (Purshia), Apple (Malus), Raspberry (Rubus), Rockrose (Cowania), Rose (Rosa), and Mountain Mahogany (Cercocarpus).



Curlleaf Mt. Mahogany

The genus Cercocarpus includes some twenty species in western North America and Mexico. My favorite is the widely distributed (Washington to California, east to Montana, south to Arizona), Curlleaf Mountain Mahogany (Cercocarpus ledifolius Nutt.).

I recall my first introduction to this evergreen shrub or small tree (to 30 feet in height). While on a collecting trip several years ago with Dr. John M. Tucker, U.C. Davis Botany Department, in the Wildrose Canyon area of Death Valley, California, we camped at the base of Telescope Peak. Here Huntington Campground is shaded by large single-stem specimens of Curlleaf Mountain Mahogany and we spent the night of July 4th camped beneath it.

The bark of these mature trees is dark, deeply furrowed and fissured, creating an interesting pattern. The leaves are 1/2 to 1 1/2 inches long, narrow to elliptic lanceolate. The upper leaf surface is dark green and lustrous and the entire margins are rolled backward slightly (revolute). The under surface may be resinous and covered with fine hairs. This species is evergreen, although others are deciduous. It may hybridize with C. Montanus in our area.

The flowers are not particularly showy since they lack petals. The fruit is a one-seeded achene, partly covered by the persistent calyx tube and the elongated style (to 3 inches long) is covered by dense hairs (plumose) in the manner of a feather. In full fruit a tree has a smoky attractive cloud-like appearance. The hairs of the style may be irritating, especially if they fall down the back of your shirt.

Curlleaf Mountain Mahogany adapts well to landscape use, provided the soil drains well. Best in a sunny location, its growth rate is moderate to rapid after the establishment period. Suggested uses are: as a single specimen, screen, or clipped hedge. Young plants are stiff and upright. Older specimens are vase-shaped, with a rounded head. Suckering may occur, resulting in dense colonies. Young nursery plants are readily transplanted from containers, although not much top growth occurs the first year. Pinching of vigorous shoots will produce a more compact plant.

...continued

NATURALLY NATIVE, continued

Specimens of Curlleaf Mountain Mahogany may be encountered in natural stands along Wasatch Boulevard in Salt Lake City or on the south-facing slopes of Little and Big Cottonwood Canyons or other canyons along the Wasatch Front.

Seeds may be germinated if they are first subjected to a prolonged period (3 months or longer) of a cold, moist period of stratification. This can be accomplished in outdoor seed beds by fall sowing or artificially by placing the seed (remove the feathery tail) in a porous moist medium (peat and sand) in a plastic bag placed in the vegetable drawer of the refrigerator (32°-41°F.). These treatments will overcome both external and internal dormancy problems inhibiting germination.

This native is becoming increasingly available in local nurseries in the Salt Lake valley.

-- W. Richard Hildreth  
Chairman, Horticulture Committee

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MEMBERSHIP DRIVE

We challenge every member to encourage at least one person to join the Utah Native Plant Society. A membership form is below, but not necessary. Just provide the new member's name, address and telephone number and indicate the class of membership requested. Also, why not give a GIFT MEMBERSHIP to a friend or relative for Christmas this year? Not only will you be giving someone a gift lasting a year and perhaps inspiring a lifelong interest, but you will be helping UNPS meet its immediate goals.

MEMBERSHIP IN THE UTAH NATIVE PLANT SOCIETY

Individual Membership:

Name \_\_\_\_\_

Street \_\_\_\_\_ City and State \_\_\_\_\_ Zip \_\_\_\_\_

Please send gift membership card to:

Name \_\_\_\_\_

Street \_\_\_\_\_ City and State \_\_\_\_\_ Zip \_\_\_\_\_

From \_\_\_\_\_

Annual Membership:

Check Membership Category:

- Individual \$8.00
- Student \$4.00
- Family \$12.00
- Supporting \$25.00
- Life \$250.00
- Senior Citizen \$4.00



Please enclose check made payable to the Utah Native Plant Society and send to:

Glenn Halliday, Treasurer, Utah Native Plant Society,  
3043 Brighton Place, Salt Lake City, UT 84121

ALL I WANT FOR CHRISTMAS IS.....

While doing your Christmas shopping, don't overlook the items available from the Utah Native Plant Society--books, a beautiful wildflower calendar, a coloring book and native plant seeds--all of which require no batteries or assembly using instructions written by someone who learned English as a second language! And they will last far beyond the holiday season.

All the items below are available for purchase at: Salt Lake Chapter meetings; at the Utah State Arboretum, U of U campus; or can be ordered by mail through UNPS, 3043 Brighton Place, Salt Lake City, UT 84121. If ordering by mail, please include postage as indicated.

You have the opportunity to purchase these outstanding books dealing with various aspects of native plants, at considerably reduced prices. (Please include \$1.50 postage per book for mail order.)

<u>TITLE/AUTHOR</u>	<u>Member</u>	<u>Non-Member</u>	<u>List Price</u>
<u>Flora of Alaska and Adjacent Parts of Canada,</u> by Stanley L. Welsh. 724 pp.	\$ 5.00	\$ 8.00	\$ 29.95
<u>Utah Plants, (Hardback)</u> by Stanley L. Welsh & Glen Moore. 474 pp.	4.00	6.00	12.95
<u>Utah Plants, (Paperback)</u> by Stanley L. Welsh & Glen Moore. 474 pp.	3.00	5.00	9.95
<u>Mosses of Utah and the West,</u> by Seville Flowers. 567 pp. (beautifully illustrated)	5.00	8.00	19.95

Also available is a most attractive and informative coloring book, Utah's Colorful Natives, produced by the Utah Native Plant Society and available for \$1.00 at meetings or by mail \$1.50, including postage.

What could be a better gift than a beautiful wildflower calendar? This one, Wild Country Flowers, 1982, has 13 full-color, larger-than-life (11" X 13") photos of Intermountain wild flowers and is among the handsomest calendars now on display at local bookstores. However, thanks to the generosity of Pam and Marv Poulson who produced the calendar, it is available to UNPS members at \$5.00. (Include \$.75 additional for mail order).

How about trying your hand at growing some Utah natives from seed? The following are currently available at 50 cents per packet and each packet tells just where the seed was collected. (Please add \$.50 to the total order if mail order):

Abronia fragrans (Fragrant Sand Verbena)	Penstemon (purple color)
Amelanchier utahensis (Utah Serviceberry)	Penstemon eatonii (Firecracker)
Astragalus asclepiadoides (Milkvetch)	Phacelia argilaceae (rare plant, new population)
Dodecatheon pulchellum (Shooting Star)	Ranunculus (yellow)
Enceliopsis nudicaulis (Sunray)	Sphaeralcea parvifolia (Globe Mallow)
Erigeron pumilus (Fleabane)	
Gaillardia	

WHAT'S BEEN GOING ON?

The November 19th Salt Lake Chapter meeting brought out a goodly number of people interested in Utah wildflower photography. A photo critiquing session was led by Pam Poulson, with slide material contributed by several photographers, among them: James Coyner, Glenn Halliday, Jennifer Harrington, Elizabeth Neese and Pam Poulson. Slides were discussed for their photographic, artistic and botanical merit and all went away with an expanded knowledge of what makes a good wildflower photograph even better. The Photography Committee was also presented with donations of slide material for the UNPS collection housed at Marriott Library, University of Utah.

WHAT'S GOING ON?

SALT LAKE AREA--UNPS, Salt Lake Chapter Meetings--Non Members WELCOME!

December, 1981 -- No meeting, Have a Happy Holiday Season!

January 28, 1982 7:30 p.m., Room 102, Chemistry Bldg., Univ. of Utah

Dick Hildreth, Director, Utah State Arboretum, and Chairman of the State Board, UNPS, will hold a workshop on "The Propagation and Garden Culture of Native Plants"--this will be a "hands-on" workshop with materials, microscopes and dissecting tools provided so you can learn the right way to "go native" in your garden.

Preceding the workshop, the annual election of the UNPS State Board of Directors and Officers will be held.

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Another meeting of interest to native plant enthusiasts:

January 21, 1982 7:00 p.m., Room 111, Milton Bennion Hall, Univ. of Utah

The Arboretum Guild of Utah Garden Lecture Series will be concerned with "Ground Covers and Alternative Turf Choices." Ms. Gayle Weinstein, horticulturist/botanist with the Denver Botanic Gardens will be the speaker.

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The Nominating Committee of the State UNPS are presently soliciting nominations for members of the Board of Directors and officers of the State Society. They would like to make this a democratic process and would appreciate your suggestions for these elected offices. Qualifications for these offices are: membership in the Utah Native Plant Society, an interest in working toward the goals of the Society by active participation on State Committees and the willingness to give of themselves for no pay, but lots of personal satisfaction! Please send your nominations to: UNPS Nominating Committee, 3043 Brighton Place, Salt Lake City, Utah 84121.

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.....Is something "up" in your county directly or indirectly affecting native plants? If so, drop a postcard to Tony Frates, P.O. Box 6257, SLC, UT 84106. Let us know 45 days in advance (if possible) of important upcoming dates. We need your input!

It's not too late to enter the...

NAME THE NATIVE PLANTS NEWSLETTER CONTEST !

After many issues, it's time our newsletter had an official, catchy name. The State Arboretum of Utah newsletter is called "The Cultivator." The Utah Chapter of the Sierra Club has the "Uinta News." You are undoubtedly familiar with many others.

Ideally, the name of our newsletter should somehow directly or indirectly relate to Utah's plants since popularizing and preserving natives is what UNPS is all about. The name should not exceed three or four words and should preferably consist of just two. It could contain part of an appropriate scientific or common plant name. Unusual or original entries are encouraged. The possibilities are endless.

Entries must be postmarked by January 10, 1982. The winner will receive a 1982 Wild Country Flowers calendar (retail price \$6.50) and a free individual gift membership worth \$8.00. Just complete the coupon below or write your entry and name and address on a postcard and mail to the Utah Native Plant Society at the address below. The winner will be announced at the Annual Meeting of the Society, January 28, 1982. Send your entry now!

-----  
My entry for the name of the Utah Native Plant Society newsletter is:

\_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Street

\_\_\_\_\_

City

State

Zip Code

Comments: \_\_\_\_\_

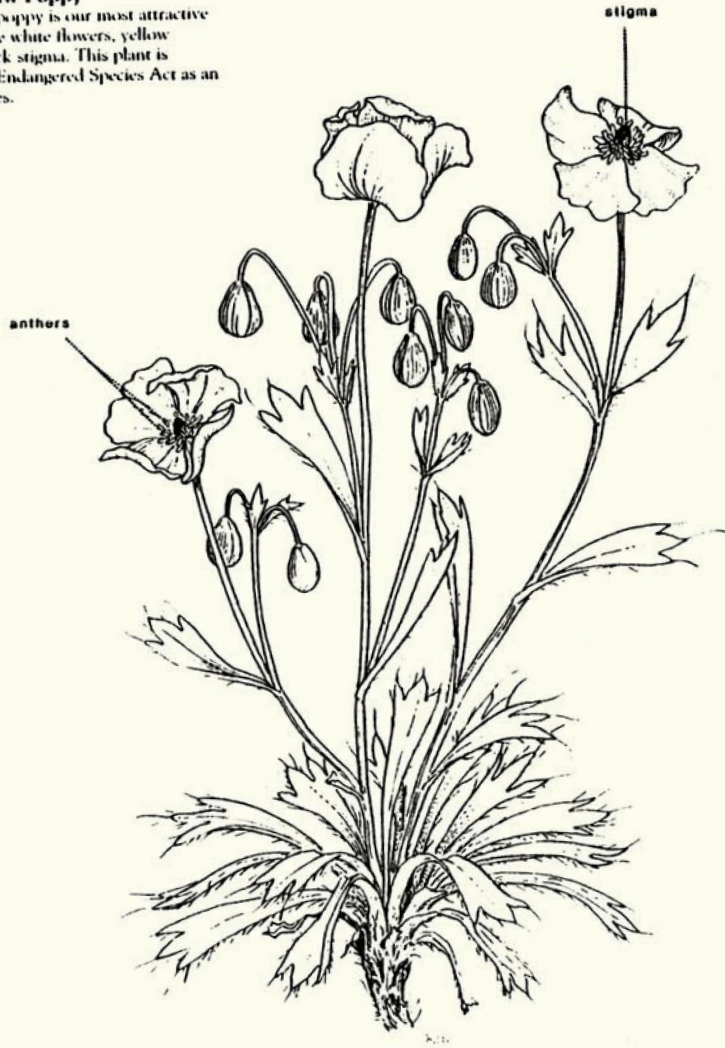
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Clip and mail to: UTAH NATIVE PLANT SOCIETY  
NAME THE NEWSLETTER CONTEST  
3043 Brighton Place  
Salt Lake City, Utah 84121

ENTRY MUST BE POSTMARKED BY JANUARY 10, 1982

**Coville Bearclaw Poppy**

Coville bearclaw poppy is our most attractive poppy. It has pure white flowers, yellow anthers and a black stigma. This plant is protected by the Endangered Species Act as an endangered species.



UTAH NATIVE PLANT SOCIETY  
3043 Brighton Place  
Salt Lake City, UT 84121

DATED MATERIAL





# UTAH NATIVE PLANT SOCIETY

NEWSLETTER  
December, 1981

Penstemon  
urahensis

## OFFICERS

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President	Barbara Halliday
Vice President (Acting)	Duane Atwood
Secretary	David Anderson
Treasurer	Glenn Halliday

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 Please send all correspondence to: Utah Native Plant Society  
 3043 Brighton Place  
 Salt Lake City, Utah 84121  
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## WHAT'S GOING ON?

Salt Lake Area--UNPS, Salt Lake Chapter Meetings--Non Members WELCOME!

December, 1981 -- No meeting, Have a Happy Holiday Season!

January 28, 1982 5:30 p.m., Board of Directors Annual Meeting,  
R.J. Wheatfield's Restaurant, Trolley Square.

January 28, 1982 7:30 p.m., Room 102, Chemistry Bldg., Univ. of Utah  
Dick Hildreth, Director, Utah State Arboretum, and Chairman of the State Board, UNPS, will hold a workshop on "The Propagation and Garden Culture of Native Plants"--this will be a "hands-on" workshop with materials, microscopes and dissecting tools provided so you can learn the right way to "go native" in your garden.

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Another meeting of interest to native plant enthusiasts:

January 21, 1982 7:00 p.m., Room 111, Milton Bennion Hall, Univ. of Utah  
The Arboretum Guild of Utah Garden Lecture Series will be concerned with "Ground Covers and Alternative Turf Choices." Ms. Gayle Weinstein, horticulturist/botanist with the Denver Botanic Gardens will be the speaker.

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.....Is something "up" in your county directly or indirectly affecting native plants? If so, drop a postcard to Tony Frates, P.O. Box 6257, SLC, UT 84106. Let us know 45 days in advance (if possible) of important upcoming dates. We need your input!

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NO THREATENED OR ENDANGERED PLANTS  
IN THE HENRY MOUNTAIN COAL STUDY AREA?

The BLM, responsible for determining whether or not federal lands are suitable for coal leasing and development, has recently completed a preliminary study involving 143,800 acres in Wayne and Emery counties (Henry Mountain Basin area--see site location map below. Capitol Reef National Park runs along much of the western boundary with the Henry Mountains to the east of the study area.)



**HENRY  
MOUNTAIN  
COAL  
STUDY  
AREA**

This study has been conducted as part of an overall management plan for the Henry Mountains area. Most of the study area is BLM administered. No coal leases currently exist on public lands; about 15,000 acres have been leased by the State of Utah on state owned land. Much of the area, due to its rugged nature, is not suitable for strip mining. Of approximately 50,000 acres suitable for strip mining, 19,000 acres were dropped after applying the twenty unsuitability criteria developed by the Department of the Interior. Acreage was found unsuitable due to Wilderness Study Areas under review, an archaeological structure, golden eagle and prairie falcon nests, critical habitat for buffalo and deer, etc. However, no federally designated critical habitats for threatened and endangered plants were found in the study.

Contrary to the findings of the study, the Utah Native Plant Society has learned that a federally listed species, Sclerocactus wrightiae (Benson) is scattered throughout the northern detached unit of the study area in Wayne County (north of Factory Butte). This particular area had largely been declared suitable for strip mining. Apparently the endangered cacti was found by Dr. Stanley Welsh during initial Intermountain Power Project studies. Hopefully much of this area will now be found unsuitable.

.... Continued



HENRY MOUNTAIN COAL STUDY AREA, continued

Some species of concern which grow in or near the study are: Asclepias ruthiae, Astragalus barnebyi, Astragalus malacoides, and Eriogonum cronquistii. According to Kathy Mutz of Meiji Resource Consultants, E. cronquistii is found well outside of the study area. Anyone who has information concerning any endangered or threatened plants in or near this area (federally listed or not) is encouraged to drop us a note. Detailed maps of the area are available upon request. A 33-page plant inventory compiled during a study several years ago is apparently available from the Richfield District office of the BLM. Since this study concentrated on preferential leasing areas and was not expanded to cover the entire area when the total acreage of the study was increased by the BLM, a more thorough study in the areas that have been found strippable and suitable (so far) may be indicated.

.....Tony Frates

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NEVADA RARE PLANT MEETING

The annual conference to review the status of rare plants in Nevada was held on November 13 and 14 in Reno, Nevada. Duane Atwood and Elizabeth Neese attended from Utah. The 1981 season's collections and field findings were presented and utilized to update recommendations to the U.S. Fish and Wildlife Service regarding the status of Nevada's rare plants, several of which also occur in Utah.

General consensus of the participants was that the demise of plans for a land-based MX defense system in Nevada and Utah removes demonstrable threat to numerous taxa previously proposed for Threatened or Endangered status. Consequently, numerous species were removed from proposed "threatened" status and placed instead on a "watch" list. The following table summarizes the recommendations of the participants:

<u>Recommendation</u>	<u>1980*</u>	<u>1981*</u>
Recommended for Endangered Status	26	20
Recommended for Threatened Status	72	23
Recommended for Special Concern/Watch List	76	71
Considered Otherwise Rare in Nevada	--	52
Deleted from consideration	22	9
Recommended for official Nevada list (threatened with extinction, fully protected by the state)	18	17

\* approximate numbers

A Rare Plant Workshop Committee has been formed which is now working on the meeting for next year--tentatively scheduled for November 12-14, 1982. The committee hopes to have Dr. G. Ledyard Stebbins, the renowned California botanist, speak at the 1982 meeting.

NOTEWORTHY 1981 UTAH PLANT COLLECTIONS

Field collections by botanists working in Utah continue to reveal new or long-lost species, range extensions, and new state records. The following chart lists noteworthy 1981 collections:

<u>Species</u>	<u>Collector</u>	<u>County</u>	<u>Significance</u>
<u>Hypochaeris radiata</u>	Lois Arnow, Elizabeth Neese	Salt Lake	First and second state records for this old-world adventive weed.
<u>Astragalus naturitenses</u>	Duane Atwood	San Juan	First state record
<u>Astragalus tephrodes</u>	Duane Atwood	Washington	Only other Utah record was collected by Marcus Jones in 1894.
<u>Sequoiadendron giganteum</u>	Duane Atwood	Washington	Only giant redwood known in the state--growing at U.S. Forest Service Guard Station in the Pine Valley Mountains; apparently planted, with a diameter of 30 inches.
<u>Peltiphyllum peltatum</u>	Kim Despain	Utah	This giant herbaceous saxifrage is native to moist mountain slopes in the Pacific Northwest. How it became established on a spring-fed slope behind Mt. Timpanogos is unknown.
<u>Sedum integrifolium</u>	Sherel Goodrich, Duane Atwood	Box Elder	First state record
<u>Ligusticum grayii</u>	Sherel Goodrich, Duane Atwood	Box Elder	First state record
<u>Astragalus desereticus</u>	Elizabeth Neese	Utah	Known only from 2 previous collections, the last in 1911; believed possibly extinct.
<u>Crepis capillaris</u>	Elizabeth Neese	Salt Lake	First state record for this old-world adventive weed.

NOTEWORTHY 1981 UTAH PLANT COLLECTIONS, continued

<u>Species</u>	<u>Collector</u>	<u>County</u>	<u>Significance</u>
<u>Astragalus chamaemeniscus</u>	Frank Smith	Iron	First state record
<u>Festuca dasyclada</u>	Steve Smith, Carlos Lopez (Heber Dist, USFW)	Wasatch	First record in Utah since 1894
<u>Astragalus filipes</u>	Kezia Snyder	Box Elder	First state record
<u>Astragalus pinonis</u>	Stanley Welsh	Beaver	First record in Utah since 1894
<u>Botrychium simplex</u>	B.J. Albee	Salt Lake (Wasatch Range)	Only previous record from Aquarius Plateau, Garfield County. It is a species of miniature grapefern, seldom collected throughout its range.

In addition, the following new Utah taxa have been described in 1981:

Artemisia norvegica var. piceetorum Welsh & Goodrich  
Astragalus equisolensis Neese & Welsh  
Astragalus lentiginosus var. pohlii Welsh & Barneby  
Cirsium barnebyi Welsh & Neese  
Cymopterus beckii Welsh & Goodrich  
Eriogonum soledium Reveal  
Hackelia ibapensis L. & J. Schultz  
Machaeranthera kingii var. barnebyana Welsh & Goodrich  
Oenothera acutissima Wagner  
Physaria newberryi var. racemosa Rollins  
Thelypodopsis barnebyi Welsh & Atwood  
Xanthocephalum petradoria Welsh & Goodrich  
Xylorhiza cronquistii Welsh & Atwood

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The annual Utah Rare/Threatened/Endangered PLant Meeting, sponsored by the Utah Native Plant Society, was held on December 4 at Brigham Young University, Monte L. Bean Museum Building. At this meeting recommendations were drawn up regarding the status of each of Utah's rare species. The minutes of this meeting and the rare plant lists developed will be published in the January newsletter.

NATURALLY NATIVE -- Bear-berry, Kinnikinnick  
Arctostaphylos uva-ursi (L.) Spreng.

The genus Arctostaphylos, commonly called Manzanita (Spanish for little apple), has its center of speciation in California with some 65 taxa. Growth forms include mat-like ground covers, shrubs and trees to 30 ft. or so. All species are evergreen with a bell-shaped flower in clusters followed by red to reddish brown fruit with a bony pit (drupe).

The southernmost distribution of the genus is on the high western flanks of Volcan de Agua in Central Guatemala (A. guatemalensis). Bear-berry (A. Uva-ursi) is the most northern species with a natural distribution including all the countries surrounding the arctic circle (circumboreal).

Bear-berry occurs at Convict Lake in the Sierra Nevada range and along the Pacific Coast of Northern California. A noteworthy and highly variable population occurs on the sand dunes at Samoa, a peninsula south of Arcata.

The flora of Utah includes most commonly the shrubby Greenleaf Mazanita (A. patula), also Bear-berry (A. Uva-ursi), at the higher elevations and A. pringlei and A. pungens in southern Utah. Natural hybrids between species may occur.

Bear-berry is characterized by its prostrate habit forming dense carpets of ovate-rounded glossy leaves (1/4" - 1/2" across) varying in color from a rich apple green to a dark green, colony to colony.

Winter color of some clonal patches may be striking rose to purple. In addition to the clusters of white to blush-pink flowers, large (1/4" - 3/4" diameter) bright red fruit persists ornamentally from the late summer into the winter. Although astringent, the fruit is relished by birds and various mammals including bear.

Venerable old plants will show the dark burgundy to coppery-hued exfoliating bark characteristic of several species, including Bear-berry. Dead branches or whole plants are prized by floral arrangers because of the interesting bark character and bold architectural lines. The wood is dense, hard and makes hot, slow-burning campfires.

It would be a pleasurable and easy task to select from wild populations, (whether on the shoreline or in alpine regions) forms differing in growth habit, vigor, leaf, flower, and fruit characteristics.



Arctostaphylos uva-ursi

NATURALLY NATIVE, continued

Propagation by seed is difficult at best. Seed passing through the alimentary tracts of birds or mammals will be observed to germinate readily by spring in the piles of scats. In the nursery germination may be induced by initially soaking the seed in concentrated sulfuric acid for prolonged periods up to 24 hours followed by thorough rinsing. Caution: This is an extremely dangerous propagation technique, best left to the professional. Subsequent storage in moist cold (32°F.) conditions may hasten the process.

An easier method is to root stem cuttings, thus insuring that the desirable genetic characteristics will be conserved in the vegetatively cloned offspring.

To make the cuttings, pinch or cut off terminal growth 3" - 6" long, preferably after the initial spring flush of growth. Rooting at other times of the year is certainly possible although the percentage rooting and time to root may be longer. Treatment with a powdered rooting hormone will be beneficial.

Roots will form in six weeks or so, especially if held in a humid atmosphere, like an enclosed plastic bag or mist system.

Select forms or cultivars of choice plants have been introduced into the nursery trade. Arctostaphylos uva-ursi 'Point Reyes' and 'Radiant' were developed by the Saratoga Horticultural Foundation in California. A. uva-ursi 'Woods Compact' was introduced by Ed Woods Nursery in Oregon. These cultivars have not been tried in Utah. However, cutting-grown plants are available as tubelings or in gallon containers through local nursery sources.

In well drained soils, establishment of young plants is fairly rapid and subsequent growth is vigorous with periodic irrigation. Additional nitrogen may be necessary in very gravelly or sandy soils. At 18"-24" spacing a solid ground cover should be achieved in about three years. Bear-berry is tolerant of partial shade in hot exposed valley sites.

If you have a mature planting of Bear-berry let us know so that photographs may be taken.

...W. Richard Hildreth,  
Chairman, Horticulture  
Committee



Arctostaphylos patula

## WILDFLOWER PHOTOGRAPHY

### CHAPTER THREE--"Getting the Subject to Cooperate and Coping with the Elements"

The photographer lies on the ground. He looks through his rangefinder to frame that elusive Alaskan Rein Orchid, Habenaria unalascensis. His light meter indicates the necessary exposure of at least 1/8 of a second. He's glad he bought that tripod! He looks through the rangefinder one last time--the flower is gone and his light meter reads that more light is needed. WHAT HAPPENED??? That afternoon thunderstorm has started getting together with a little wind and a lot of clouds. What can he do?

This scenario is common in wildflower photography. The photographer's wonderful natural studio can, in a matter of minutes, become the photographer's major antagonist.

#### THE ANTAGONISTS

Subject movement: This is caused by breeze. Sometimes a tall plant can be blown out of the composition by a breeze so slight we can't even feel it ourselves.

How to cope - I. Prop the plant up. A stick, used as a splint down the side of the stem and into the ground works just fine. If necessary, tie the plant to the stick with a string. Some photographers carry a studio light stand equipped with a gentle clamp to hold their flower.

How to cope - II. Create a windbreak. A piece of cloth such as your sweater will even do the trick. Also an assistant can position himself so as to block the breeze.

With either of these methods, remember to avoid positioning any windbreaks or props so as to be seen through the viewfinder. Double check before you shoot. Reposition the camera if you have to.

NOTE: THE AIR IS MOST CALM EARLY IN THE MORNING.

Not enough light: At the base of a dense forest or on a cloudy day, low lighting may be a problem.

How to cope - I. A tripodded camera and a propped plant will help gain the time needed for a longer exposure. Wait for that shaft of light between the branches or passing clouds.

How to cope - II. There are a couple of pieces of equipment that can be used. One is very inexpensive--a piece of aluminum foil. Use this as a reflector to bounce any brighter light onto the flowers. Crumple the foil then flatten it out. Use the dull side for reflecting. These two measures prevent "hot spots."

...continued

## WILDFLOWER PHOTOGRAPHY, continued

The other piece of equipment is an electronic flash. These are somewhat expensive (starting at \$29.00) and some even need an accessory power pack to spark them. Also, at close ranges (closer than 4 feet), a camera-mounted flash may either be too bright or flash over the top of the flower and miss lighting it at all. In these cases a ring flash (a doughnut-shaped flash that fits around the lens) is what is needed. These are very expensive (around \$150.00), but they are worth it. A ring flash can light a flower that is a mere two inches from the lens.

Obtrusive or messy backgrounds: Say you find the perfect flower leaning against an ugly fence, or one that you would like to isolate from other plants around it, or one that does not stand out from its background because of its color.

How to cope - I: If the unwanted background is far enough removed from the flower, the most simple solution is to cast a shadow on the BACKGROUND. Use your hat, a piece of cloth, your buddy, or whatever. Watch through the viewfinder to see that the shadow is where you want it. It needs to cover the background, but not touch the flower.

How to cope II: Use an artificial background. Carry a piece of colored paper or cloth to hold up between the flower and the unwanted background. The tones of this background should be even and natural in color. If you look closely at some of the color photos in field handbooks, you'll see that a piece of black paper has been used. This sets off the natural colors of the flowers. Whatever you use as an artificial background, be sure that it is well out of focus.

NOTE: BACKGROUND MATERIAL AND WINDBREAK CAN BE ONE AND THE SAME.

One more look: If the flower arrangement is not pleasing, adjust the arrangement using your prop-stick, strings, rocks at the base of the plant, or whatever AVOID PICKING, BREAKING OR STRANGLING THE PLANT. Also, a flower portrait can be enhanced by many "natural" additions: Spritz some "dew" onto the flower with a spray bottle, wait for an insect to land on the flower, etc., etc. With experience, wildflower photographers become very ingenious and inventive!

... Pam Poulson  
Chairman, Photography  
Committee

Next time: "DESIGNING" or, "THE CAMERA SEES EVERYTHING"

BARGAINS! BARGAINS! BARGAINS!

The list of items available to you through the Utah Native Plant Society keeps on growing. Here are the bargains presently available--some are an even better bargain if you are a current member of UNPS, so why not include your membership check with your order?

All the items below are available for purchase at: Salt Lake Chapter meetings; at the Utah State Arboretum, U of U campus; or can be ordered by mail through UNPS, 3043 Brighton Place, Salt Lake City, UT 84121. If ordering by mail, please include postage as indicated.

You have the opportunity to purchase these outstanding books dealing with various aspects of native plants, at considerably reduced prices. (Please include \$1.50 postage per book for mail order.)

<u>TITLE/AUTHOR</u>	<u>Member</u>	<u>Non-Member</u>	<u>List Price</u>
<u>Flora of Alaska and Adjacent Parts of Canada,</u> by Stanley L. Welsh. 724 pp.	\$ 5.00	\$ 8.00	\$ 29.95
<u>Utah Plants, (Hardback)</u> by Stanley L. Welsh & Glen Moore. 474 pp.	4.00	6.00	12.95
<u>Utah Plants, (Paperback)</u> by Stanley L. Welsh & Glen Moore. 474 pp.	3.00	5.00	9.95
<u>Mosses of Utah and the West,</u> by Seville Flowers. 567 pp. (beautifully illustrated)	5.00	8.00	19.95

Also available is a most attractive and informative coloring book, Utah's Colorful Natives, produced by the Utah Native Plant Society and available for \$1.00 at meetings or by mail \$1.50, including postage.

Need a calendar for 1982? This one, Wild Country Flowers, 1982, has 13 full-color, larger-than-life (11" X 13") photos of Intermountain wild flowers and is among the handsomest calendars now on display at local bookstores. However, thanks to the generosity of Pam and Marv Poulson who produced the calendar, it is available to UNPS members at \$5.00. (Include \$.75 additional for mail order).

How about trying your hand at growing some Utah natives from seed? The following are currently available at 50 cents per packet and each packet tells just where the seed was collected. (Please add \$.50 to the total order if mail order):

Abronia fragrans (Fragrant Sand Verbena)	Penstemon (purple color)
Amelanchier utahensis (Utah Serviceberry)	Penstemon eatonii (Firecracker)
Astragalus asclepiadoides (Milkvetch)	Phacelia argilaceae (rare plant, new population)
Dodecatheon pulchellum (Shooting Star)	Ranunculus (yellow)
Enceliopsis nudicaulis (Sunray)	Sphaeralcea parvifolia (Globe Mallow)
Erigeron pumilus (Fleabane)	
Gaillardia	



!!! NAME THE NATIVE PLANTS NEWSLETTER CONTEST !!!

After many issues, it's time our newsletter had an official, catchy name. The State Arboretum of Utah newsletter is called "The Cultivator." The Utah Chapter of the Sierra Club has the "Uinta News." You are undoubtedly familiar with many others.

Ideally, the name of our newsletter should somehow directly or indirectly relate to Utah's plants since popularizing and preserving natives is what UNPS is all about. The name should not exceed three or four words and should preferably consist of just two. It could contain part of an appropriate scientific or common plant name. Unusual or original entries are encouraged. The possibilities are endless.

Entries must be postmarked by December 30, 1981. The winner will receive a 1982 Wild Country Flowers calendar (retail price \$6.50) and a free individual gift membership worth \$8.00. Just complete the coupon below or write your entry and name and address on a postcard and mail to the Utah Native Plant Society at the address below. The winner will be announced at the Annual Meeting of the Society, January 28, 1982. Send your entry now!

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My entry for the name of the Utah Native Plant Society newsletter is:

\_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Street

\_\_\_\_\_

City

State

Zip Code

Comments: \_\_\_\_\_

\_\_\_\_\_

Clip and mail to: UTAH NATIVE PLANT SOCIETY  
NAME THE NEWSLETTER CONTEST  
3043 Brighton Place  
Salt Lake City, Utah 84121

ENTRY MUST BE POSTMARKED BY DECEMBER 30, 1981



**Graham Beardtongue**

Flowers are light to deep lavender. The leaves are dark green with distinct veins. Graham beardtongue grows only on oil shale land in the Uinta Basin of Utah. It is a candidate for endangered status.

--from Utah's Colorful Natives,  
published by the Utah Native Plant Society

UTAH NATIVE PLANT SOCIETY  
3043 Brighton Place  
Salt Lake City, UT 84121

DATED MATERIAL

